Housing Quality
A Program for Zoning Reform

The Urban Design Council of the City of New York

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Contents

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INTRODUCTION AND SUMMARY

Fifteen months ago, when Mayor John V. Lindsay asked the Urban Design Council to investigate ways to improve the quality of the City's new housing, it was abundantly clear that the assignment had a great deal to do with the City's economic and social well-being. To the extent that the City must compete with the suburbs for tenants, the quality of our new housing affects our very survival. Moreover, quality bears a ponderable relationship to the more conventional concern for quantity as, increasingly, neighborhoods resist what they consider the disruptive intrusion of new high-rise apartment buildings. This issue of community opposition to new housing is far from simple. There is no doubt, however, that inappropriately designed towers and slabs have contributed to the present turmoil which threatens to diminish intolerably the production of housing, if not halt it altogether. A recurring theme of the conflict is one of scale: high-rise versus low-rise housing. Scale used to be simply a trade word among design professionals, but it has become a popular cause from coast-to-coast and an expression of a deep-seated preservation instinct. A recent public referendum in San Francisco, which intended to limit the height of any new development in that city to a maximum of six stories, came very close to adoption.

While we were, at that time, only vaguely aware of the many implications of the word housing, we were totally unaware of the elusive and frail nature of the word quality. The many perceptions of quality, like beauty, have traditionally been violently personal, and often conflicting among the various interests in housing. After a full assessment of all the viewpoints and after long months of deliberation, we have arrived at what we believe to be a humane, rational and workable definition of quality: one which accounts for the architects' concern for propriety, the builders' concern for efficiency, the owners' concern for marketability and the tenants' concern for livability.

We have shaped the definition around those forces which have the most immediate, and ultimately most sustaining, vested interest in the quality of housing; namely the neighborhood and the tenant. Quality in housing may not exist independent of its surroundings. Housing quality must be considered synonymous with neighborhood quality. Solid neighborhoods add

lustre to unspectacular buildings, while even the most satisfactory apartment house has trouble surviving in a disintegrating neighborhood. The Council's predecessor, the Mayor's Task Force on Design, recognized this in 1967 when, in The Threatened City, it observed: "In too many sections of the City, the sense of place is being eroded by a slowly advancing glacier of.....buildings entirely lacking the ambition of design except for the furnishings in their lobbies."

This sense of place, of diversity and of distinctiveness, is precious to the City as well as to local residents, contributing to morale, self-respect and the sense of community. It must be protected.

Our second determinant of quality is the individual tenant. While many theories of user need have been postulated over time, little of what is built today reflects the current attitudes or predispositions of tenants. The traditionally low vacancy rate in New York City operates in favor of the seller, so that it is more often the protective instinct of management toward property which assures a minimum level of services rather than any thoughtful response toward tenants' needs.

With these two reliable indices of neighborhood and tenant, quality can be postulated within four basic areas: neighborhood impact, recreation space, security and safety and the apartment. We began the formulation with over seventy discrete items which have now been reduced to thirty-seven weighted and sharply differentiated elements. This refinement is the result of a year-long testing program during which time we subjected a variety of existing buildings, in neighborhoods of varying densities and scale, to the rigorous criteria of objectivity and equity. We further discarded difficult-to-measure elements so that we know the final product is both feasible and practical.

With a definition in hand, we set out to determine the best instrumentality for achieving that quality. Although we considered several approaches, including the Building Code and the Housing and Maintenance Code, we soon realized that zoning is the appropriate vehicle. For surely it is axiomatic that zoning designs the City.

We are proposing a completely new approach to zoning for residential construction.....an approach that would set the same standards for subsidized as well as for private housing and that would transcend the traditional boundaries of the individual zoning lot to recognize the primacy of the neighborhood. Unlike the present zoning regulations, our proposals do not mandate all requirements nor offer voluntary bonuses for specified amenities. Instead, within given limits, the entire process would be elective, setting goals rather than minimum standards that effectively become maximum achievements.

In order to put up a new residential building, a developer would have to earn a sufficient number of quality points in the four identified programs of quality; namely, neighborhood impact, recreation space, security and safety, and the apartment. The point system is delicately calibrated: different values are given for different elements and for varying degrees of compliance with each specific goal. For twenty-two of the elements, a minimum level of compliance is specified; extra points would be gained by going beyond that minimum. The degree of compliance of the other fifteen elements would be left to the discretion of the developer.

Although minimum compliance with the twenty-two basic elements would yield a project of acceptable quality, the scoring has been established in such a way that there is always an incentive to achieve higher levels of quality to the mutual benefit of developer and tenant alike. By its flexibility, the proposed zoning would offer a free choice system that for the first time accurately mirrors the selective process of actual planning and design. A developer and his architect could choose to amass points by enlarging room sizes while sacrificing some degree of visual privacy, or by providing larger windows but deleting balconies.

The proposed Housing Quality Program recognizes the diversity of neighborhoods and the different needs of an already-developed as opposed to a predominantly vacant area. The present limitations on ground coverage would be removed so as to produce the opportunity for lower buildings and economic efficiencies. Recreation activities would now be encouraged not only outdoors, but also on rooftops and even within the buildings. Increased security is envisioned, for example, by making elevator lobbies visible from the sidewalks.

Regardless of the benefits that might be accomplished, even an ideal zoning process would be useless if it raised construction costs to an uneconomic level, driving developers to inactivity or out of the City. This issue is discussed in detail in the body of the report. Here it is sufficient to say that we have carefully considered the cost implications of our proposal. We are convinced that to design buildings with measurably high quality, consistent with the goals of this proposal, will cost no more than to design lower quality buildings to the specifications of present zoning regulations.

The Housing Quality Program would not conflict in any way with existing statutory controls...at the State level, the Multiple Dwelling Law and the Building Code; at the City level, the Administrative Building Code and the Housing and Maintenance Code; or with Federal guidelines regarding subsidized housing. It would not, unfortunately, substitute for the bureaucratic pile of maddeningly dissimilar standards that now bedevil everyone concerned with housing production, but it may hopefully serve to instigate a reevaluation of such standards.

In summary, the advantages of the proposed Housing Quality Program are many:

- It insures respect for the scale of the City's neighborhoods, thus facilitating community acceptance of proposals for new residential developments.
- It sets out criteria that recognize real tenant concerns, rather than cleaving to abstractions that cover all neighborhoods uniformly. The recommended criteria are at the opposite pole from the miscellaneous collection of manuals, memos and bulletins that define publicly assisted housing in terms of linear feet, square feet and cubic feet...a collection more expressive of a compulsion toward measurement than of any desire to consider human needs.
- It provides developers and architects with a flexible set of elective goals that would enable them to sponsor residential developments of perceptively higher quality at no additional cost. These goals were designed to echo and facilitate the actual design process.
- Its goal is quality housing rather than minimal housing.

Although we have gone to considerable detail with these proposals, we present this report as an interim working document. We urge the Mayor to initiate a program of public review and debate in order to gain a consensus on the merits of the proposal. Our intention from the outset has been to place the design and zoning process in the public domain.

EXISTING RESIDENTIAL ZONING

In 1961, after many years of exhaustive preparation, the City adopted a new Zoning Resolution to replace the original 1916 document. The new version provided a rational guide to the growth and future development of the City. Use classifications for residential, manufacturing and commercial areas were established and mapped. The intensity of development was regulated through a series of bulk control formulas, and design controls were imposed which guaranteed the provision of adequate light and air throughout each district. Requirements for off-street parking of cars and off-street loading of trucks were built into the Resolution. More open space and less overcrowding in residential areas were insured by a carefully worked out set of interrelated controls. In summary, the new Resolution was an admirable achievement which represented a dramatic extension of zoning technology.

Unforseen, however, was the reality that abstract controls, which abound in the Resolution, tend to create a set of rigid formulas, or zoning envelopes, which limit the adaptability of the document. There is, for instance incorporated into the Resolution, a predetermined vision of the built world.....a vision with historic roots back to the early planning work of Le Corbusier: namely, a series of residential towers placed in an extensive urban park system. In the 1920's this concept represented a persuasive marriage of building technology and social awareness of nascent urban problems. The conquest of this formulation was complete and lasting, up to and including 1961.

The present New York City zoning is in fact the ultimate documentation of that concept. The Zoning Resolution is a bonus system which grants more buildable area for incremental increases in height and additional open space on the ground. The inevitable result is that within each residential district there is an optimum solution: a high tower surrounded by park-like spaces. The unfortunate circumstance is that the Zoning Resolution in effect mandates a building type which has become the symbol for, and often the root cause of, extensive neighborhood conflict. The tower-in-a-park concept appeared valid on an extensive large scale basis. It has become evident, however, that within a dense urban framework the tower solution creates individual, isolated incidents which suffer more than succeed from their very remoteness.

This bias for a particular physical prototype was programmed for each residential district. Consequently there is no sensitivity beyond generalized mapping for the various neighborhoods within the City. Both Greenwich Village and the South Bronx are mapped R-6. No account is taken of the various geographic, social or economic conditions within these dramatically different areas. As far as existing zoning is concerned, they represent identical situations.

To compensate for this obvious discrepancy within zoning, a mechanism has been developed over the past decade to achieve specific planning and urban design objectives: the Special Zoning District. This form of legislation recognizes that the present zoning is not sufficiently particularized at the local area level. The Lincoln Square and the Greenwich Street communities are just two of more than a dozen districts which have recently proliferated to supplant current restrictive regulations.

Clearly, there is either the need for many more special purpose districts or in the alternative, a revision of the existing Zoning Resolution which includes sufficient flexibility to accomplish local purposes. In the interest of simplicity rather than additional complexity, the Urban Design Council favors the latter approach.

TOWARD RESPONSIVE ZONING

The feeling of distinctiveness which characterizes most of the City's neighborhoods must be encouraged and not destroyed. That the City's own Zoning Resolution mitigates against this objective is a source of dismay. An obvious approach would be an extensive remapping procedure of the existing zoning district boundaries to more accurately define neighborhoods in terms of physical and service characteristics. That process, if and when completed with appropriate local participation, would still miss an essential ingredient: the ability of a neighborhood to grow and change incrementally rather than precipitously. The mere act of mapping itself would constitute an unacceptable fixing of conditions at a point in time.

The alternative is to accept the current mapping as a reasonable statement of district boundaries and of intensity, but then to incorporate into zoning generalized performance criteria which assure neighborhood harmony and legitimate tenant rights. What's good for the people of Greenwich Village is good also for the people of the South Bronx when basic human values are involved. To identify and then codify that commonality is the threshold of this report.

TOWARD A DEFINITION OF QUALITY

The broad objective of the Urban Design Council recommendation is to promote the highest achievable standard of quality, consistent with economic feasibility, for residential construction in New York City. To this end the Housing Quality Program is proposed as both a design and evaluation tool for all new residential development throughout the City. The proposal implies a definition of quality upon which substantial agreement can be reached among various and often competing housing interests; including community groups, tenants, architects, developers and government officials.

The criteria imposed in the selection of the elements of quality are two: equity and objectivity. To be acceptable an element must hold equally true for the Borough of Queens as for the Borough of Manhattan, and equally true for high-income as well as low-income tenants.

Objectivity proves to be the more difficult criterion. The quality elements must necessarily lend themselves to measurement. This mechanical requirement tends to eliminate those elements which primarily involve subjective value judgements. For example, there are limitless personal attitudes regarding apartment quality. Practical necessity as well as personal preference dictates a variety of life styles, from loft spaces to houseboats, all of which are viable and should not be precluded by a new zoning formulation. Personal style is a matter better left alone than controlled by regulation.

Following the dual principles of equity and objectivity, thirty-seven specific elements have been established as constituting housing quality. The elements are grouped into four quality programs: a) Neighborhood Impact; b) Recreation Space; c) Security and Safety; and d) the Apartment.

NEIGHBORHOOD IMPACT

One of the primary mandates of this program is that new housing be regarded as beneficial rather than disruptive to the adjacent community. Respect for prevalent scale of the neighborhood is assured by establishing the height of a project in relation to that of surrounding buildings. To extend this good neighbor policy, elements are included which minimize the effect of shadows cast by the project on adjoining public and private properties, whether open space or buildings. Developments which provide continuous street facades and activities are considered more favorably than those which tend to break continuity or have empty spaces on the street. Another element promotes the infusion of greenery into the City by mandating the planting of new trees on the sidewalks.

RECREATION SPACE

This program constitutes perhaps the most dramatic departure from prevalent theory and practice. "Open Space" as required by regulation, is typically open, but seldom space. The Recreation Program targets to relate, for the first time, the nature and extent of facilities provided to the occupancy characteristics of the intended residents.

Any proposed housing development will accomodate, within predictable limits, a fixed number of children and/or adults. Based upon these projections, specific types of recreation space must be provided for the exclusive benefit of the various age groups. The required recreation space is based upon a reasonable minimum need per person in the development, and may not be impinged upon for any other purpose, such as parking.

A second major departure is embodied in the definition rather than allocation of recreation space. Presently only the space at ground level or on a roof no greater than twenty-three feet above ground level is permitted to count toward an open space requirement. This limitation is too restrictive. It is proposed instead that required recreation space be permitted not only on ground level but also on roofs wherever they are suitably and conveniently developed for the use of the residents. Covered, or weather protected, space is also suitable for recreation purposes, and in certain instances even appropriate indoor space should be counted toward the required program. This more intensive use of a site for recreational purposes is both a psychic necessity and a design opportunity to create new forms of urban amenity.

Beyond type, size and location, standards are proposed to assure the adequate provision of winter sunlight, landscaped areas, sufficient on-site trees and properly placed benches. A final element is the visual shielding of required off-street parking spaces.

SECURITY AND SAFETY

In that security and safety represent mutual concerns of both tenants and management, this program is crucial to any concept of housing quality. To date these concerns have been satisfied by the often belated application of human, canine or mechanical hardware. The proposed quality elements incorporate the principle of maximum visual surveillance as a deterrent to potential personal or property damage.

The program is not offered as an alternative to sophisticated crime prevention technology. It is postulated rather that a considered design approach to the problem may achieve significant benefits for the residents with a minimum of effort. Consequently those areas of documented high crime activity within a housing development are identified and programmed for visual exposure. The elements include high visibility of elevator lobbies, circulation stairs, parking lots and outdoor recreation spaces.

The concept, simply stated, is that organizational decisions regarding public, semi-private and private spaces can be made which tend to foster recognition of neighbors and outsiders.

The resulting sense of intimacy and identification will tend to inhibit crime and vandalism. This premise regarding security and safety is an essential ingredient to housing quality.

THE APARTMENT

The program for living space contains no surprises. From caves to space capsules there are few surprises left. There are instead only common, ordinary and elemental qualities which by now are conceived as basic inalienable rights.

> The program intends no breakthroughs, but rather, a simple self-evident catalogue of reasonable considerations for programming sound housing. Large size in an apartment is non-controversial and desirable. The element which calls for sunlight in the apartment is more directed to the orientation of a building on a site than to preventing windowless apartments. Further provisions assure visual privacy between apartments, daylight in kitchens and an adequate garbage storage and removal system. There are finally performance guidelines regarding balconies, if provided, and daylight in hallways.

It is the considered opinion of the Urban Design Council that the four identified programs constitute a humane, rational and workable definition of quality.

The Housing Quality Program is notable also for its exclusions. Three further programs, namely Management, Building Code and Parking were considered but omitted for specific reasons. Management factors such as the standard lease, maintenance and tenant training, which undeniably affect quality, can seldom be determined with sufficient specificity prior to occupancy. The absence of guaranteed compliance was a critical determinant to deleting the program. The Building Code, as well, contains many standards regarding the quality of the residential environment, although a thorough analysis of the Code is beyond the scope of this report. Three areas in particular require immediate investigation: the provision of adequate lighting levels throughout a new development; a revision of materials specifications to permit transparent surfaces for elevator and stairway doors; and the provision of adequate sound dampening to maintain privacy between apartments in any new building. Finally parking was determined to be inextricably tied to any consideration of housing quality. The recurring conflict between recreation need and parking demand is a consistent phenomenon throughout the City. In recognition of this important interaction, a specific Supplementary Recommendation is made in the Appendix to the report.

II. PROCESS

THEORY

Having defined quality and determined that zoning is the appropriate vehicle to best promote it, a suitable mechanism was sought to assure that the achievement of quality is accomplished in an expeditious manner.

The resulting proposal differs conceptually from both the traditional zoning exercise of "minimum standards" and the more recent trend of "incentive" zoning. The existing Zoning Resolution is based upon the theory of mandatory compliance with a series of regulations regarding a single zoning lot. The intent is primarily to minimize harm on adjoining properties. Predictably the minimum standards became the maximum. This has led to stereotype designs throughout the City, regardless of the character of the older, surrounding neighborhood.

Incentive zoning grew out of the insufficiencies of the minimal approach. The concept generally is that certain desirable amenities, presumably non-revenue producing, will not be provided without the economic incentive of additional revenue-producing floor area. This compensation or bonus mechanism was included in the 1961 Resolution on a limited basis (plazas and arcades) and with variable success. Later refinements at the local area level, i.e. Special Zoning Districts, broadened the range of amenities to include the preservation of specialized building types such as theaters and pedestrian connections to public transit. In order for incentive zoning to work, there must be a high degree of economic activity. For this reason special districts have occurred most often in the high-bulk commercial cores of the City.

The process recommended to implement the Housing Quality Program recognizes the inherent limitations of both methodologies. In the first instance, the negative rigidity of minimum standards, when applied on a city-wide basis, generates uniform rather than varied design solutions. In the second instance the incentive approach relies on episodic economic energy which is tragically lacking in the housing market. This is particularly true for the publicly-assisted programs, where the social mandates operate very differently from the more traditional profit incentives. For these reasons a totally new approach was developed.

The Housing Quality Program relates zoning to the actual design process, the basis of which is choice. All design professionals exercise choice, either consciously or subconsciously, among the range of variables available. This exercise of choice constitutes the basic mystery, and sometimes poetry, of the profession. A primary objective of the proposal is to codify those variables. The exposure of the quality programs to public scrutiny should serve both to minimize the popular suspicion of zoning as an abstract, irrelevant science and to build a constituency for quality that is now preciously thin. Zoning might then become the partner rather than the inhibitor of quality design.

Consequently a system of trade-offs among real-world choices is institutionalized. The Housing Quality Program is essentially a program for accommodation and balance which incorporates goals rather than minimum standards. The proposal recognizes that goals, by definition, are not necessarily achievable and that choices among goals are inevitable. Therefore the manner in which quality is achieved may vary from neighborhood to neighborhood.

The core of the theory is an elective zoning, where harmony may be achieved between pre-existing and post-development realities.

THE SCORING MECHANISM

The basis of the scoring mechanism is a rating system which, for any new housing proposal, develops a numerical value up to a theoretical maximum of 25 points for each program. These program points are then converted to a quality rating. The quality rating then determines the permissible intensity of development for a given site. The concept is thereby to employ recognizable and publicly-supported quality as the regulatory factor regarding density.

Each of the four quality programs (Neighborhood Impact, Recreation Space, Security and Safety, the Apartment) contains a number of quality elements. Each of the elements in a program is assigned a weighted value so that the score adds up to a total of twenty-five points per program. In this manner, each of the four programs is considered to be of equal importance. It is surely true that in some areas of the City the concern for neighborhood impact might predominate over, for instance, the issue of recreation space. This variation in emphasis is accommodated by simply pre-determining to score higher for that program. Indeed, the priorities among the programs can be established before any detailed design work begins on a project.

The various elements within a program are stated as goals rather than as minimum standards. Maximum points are obtained through total compliance with the proposed goal. Each goal implies the possibility of achieving one hundred percent compliance, and hence the full point score for that element. Less than full compliance is rewarded with fewer points, and non-compliance is permitted as well. There is in addition a mandatory aspect to the scoring mechanism. Certain elements within each quality program are considered absolutely essential to attaining an acceptable level of quality. For these particular elements, (twenty-two of the thirty-seven) a minimum level of compliance is stipulated. This device serves as a warranty against mindless design.

For example, the program for providing trees on a one-acre site in an R-6 district calls for 160 total inches of caliper. These may be new or existing trees. Fifty percent is the stated minimum compliance for this element. Consequently, no less than eighty inches of tree is permitted under any circumstances. If there are existing large trees already on the site, clearly the incentive is to preserve them. The maximum total for this element is 2.45 points, for providing the full 160 inches of trees. The fifty percent minimum mandated compliance of 80 inches of tree scores no points. If 128 inches of tree is provided, or eighty percent of the goal, the project achieves a partial score of 1.04 points for this particular element.

It was further determined to score each of the four quality programs separately. If it were permitted to add together the points from each program, the potential for abuse would be great: an entire program could be electively discarded. The disaggregated rather than aggregated system is employed as a further guarantee of responsible design.

Many alternatives have been explored to relate the concept of quality to density. In this regard two basic principles guided the formulation of the scoring mechanism. First, existing use classification (i.e. residential, commercial, manufacturing) and district mapping (the boundaries which define separate districts) are accepted as givens. Second, the Urban Design Council believes that no further increase in density, beyond presently permitted maximums, is warranted. Based on these assumptions, the proposed system would grant incremental increases in density for progressively higher attainment of quality.

The number of program points earned through compliance with the stated goals is converted to a quality rating. This measure is stated in quality points, up to a maximum of twenty for any development. The quality points are then used to determine the buildable area permitted on a site. A sliding scale of floor area is employed, up to the present maximum limit for each residential district.

It is further proposed to abandon the conventional "lot area per room" as the controlling factor regulating density. Instead, the more readily understandable "floor area per room" is adopted. Once the total permissible floor area is determined by the quality rating, the permissible number of zoning rooms is quickly obtained. An example will illustrate the procedure. Suppose on a one acre (43,000 sq. ft.) site, in an R-6 district, a project develops fifteen quality points. It is therefore entitled to 2.1 times the area of the site, or 90,300 total buildable square feet. The floor area per room ratio in an R-6 district is 230 square feet per room. Consequently 393 zoning rooms are permitted on the site (90,300 divided by 230). Tables 1 and 2 in the Appendix illustrate the proposed scoring mechanism.

The mechanism has been organized in such a way that minimum compliance with the goal of an individual element is rated at zero. Therefore a building that develops no quality points, by minimally complying with the mandated elements and discarding all the others, can still be built. The project will have achieved an acceptable level of quality: namely, it will generally conform in scale to the neighborhood; it will have adequate recreation space for the tenants; it will have incorporated security precautions; and it will have apartments of good size with adequate sunlight. It would be permissible to construct such a project, if at a reduced density. The scoring mechanism has been weighted so that the incentive to achieve higher levels of quality will always be operative for the mutual benefit of the developer, the architect and the tenant.

ADMINISTRATION

Any new zoning proposal, no matter how compelling or sophisticated, can be brought to ruin if the details of administering the program are overly complex. For this reason and as a practical matter, it is proposed that the mechanics of zoning administration would remain unchanged. The Housing Quality Program would in no way jeopardize the statutory authority of those agencies (City Planning Commission, Board of Standards and Appeals, the Department of Buildings and the Board of Estimate) which bear the major responsibility for administering zoning.

The intention rather is to substitute a far simpler document for the existing Zoning Resolution. One that is relieved of the burden of obscure abstraction and elite professionalism. Each of the thirty-seven quality elements has been framed in such a way that it can be illustrated and measured. No element is beyond the competence of the architect to ascertain, or of the buildings examiner to certify. The dual objective of clarity of intent and simplicity in execution has been scrupulously maintained.

First the developer/sponsor determines the required density to achieve an economically feasible development, and hence, the quality rating required to achieve this density. The sponsor, builder and architect jointly negotiate the various elements of the quality programs which they deem to be of paramount importance for the particular site and the surrounding neighborhood. With this program, now particularized to a given site, the architect begins the process of giving form and substance to the program. He would prepare a separate drawing of zoning calculations, as he does now, for submission to the Department of Buildings, the agency charged with enforcement of the Zoning Resolution.

The architect's drawings are then certified for compliance with the quality programs prior to approval and issuance of a Building Permit.

COST IMPLICATIONS

No consideration of housing quality can be divorced from the dictates of cost. And surely it is a widely-accepted cliche that anything having to do with "quality" will cost more. It has been an unalterable objective that the cost of building housing not be increased as a consequence of implementing this proposal. We are confident this objective has been met: that designing a project to achieve a high quality rating is no more expensive than designing a project to the standards of present zoning.

Three specific strategies have been employed to assure this result. First, an extensive program was undertaken to test a broad range of newly completed buildings, each designed in accordance with the 1961 Zoning Resolution. A variety of types, from garden apartments to high-rise, were selected in each of the zoning districts. One of the unforseen conclusions of the testing is that many existing buildings do score a remarkably high number of quality points. A second surprising conclusion is that projects designed for the subsidized housing programs and built within the statutory funding limits of those programs, often score higher than conventionally-financed buildings. In summary, many buildings already built today, with

very minor adjustments, can achieve considerable quality as defined by the Housing Quality Program, with no additional cost.

Second, a continual cost analysis of the individual elements was carried out as the proposal developed. The theory of trade-offs was applied to costs as well. For some elements, full compliance with the stated goal would cost more than conventional practice. Large room sizes are a prime example. Full compliance for the majority of elements would have no cost consequences: visibility of the elevator doors from the lobby is organizational in character and typically provided today. Some of the elements would in fact produce cost reductions. For example, the elevator systems are significantly less expensive in lower buildings than in high rise apartments. In summary, while full 100% compliance with every quality element might indeed add costs to the project, such compliance is not necessary to produce a high-quality building and therefore is not envisioned.

Third, the effect of the Housing Quality Program is to create balancing economic efficiencies by eliminating certain constraints built into present regulation. By removing the limitation on how much of a site a building may cover, the potential for cost reductions is dramatic. The existing 40% maximum coverage for a residential tower, if increased to 50%, would permit a 25% reduction in the height of the building. The economics of lower height and larger individual floors are obvious. Similarly, many projects now compelled to use reinforced concrete as the basic building material, might well be able to use less expensive types of construction.

By these three mechanisms, the Council is reassured that the Housing Quality Program would not inhibit housing production.

As a further economic benefit, we recommend that the provision of tax abatement be considered in conjunction with the Housing Quality Program. Incremental increases in tax relief, for a limited number of years, could be granted for the increased accumulation of quality points. This would achieve two objectives. First, the potential reduction in rents would give an additional competitive advantage to buildings of measurable quality. As a practical matter, this would stimulate the achievement of quality and improvement of the housing stock. Second, the use of tax benefit has a potential role as a quality control or maintenance mechanism. If trees died and were not replaced or if a promised recreation deck over parking were not provided, the tax benefits could be rescinded. We urge that an investigation of this concept be undertaken.

		MAXIMUM VALUE	
	NEIGHBORHOOD IMPACT	Built Up	Non Built Up
1.	Street wall setback*	4.55	n.a.**
2.	Sunlight in open space*	3.60	4.70
3.	Length of street wall*	3.60	7.55
4.	Shadow on buildings*	3.05	5.40
5.	Height of street wall*	3.05	n.a.
6.	Street trees*	2.85	4.15
7.	Height of building*	2.15	n.a.
8.	Transparency ratio at ground floor*	2.15	3.20
		25.00	25.00

		MAXIMUM VALUE
	RECREATION SPACE	
1.	Type and size*	8.50
2.	Winter sun	5.00
3.	Landscaping	2.75
4.	Covered parking	2.65
5.	Visibility of parking*	2.65
6.	Trees*	2.45
7.	Seating	1.00
		25.00

*Minimum compliance levels established

**n.a.--not applicable

		MAXIMUM VALUE
	SECURITY AND SAFETY	
1.	Vis. from public space to elevator door or general circulation stair	3.90
2.	Vis. of priv. outdoor space from lobby*	3.90
3.	Surveillance from large apartments	3.30
4.	No. of apts. serviced by lobby	2.90
5.	Vis. of parking from exit point*	2.25
6.	Vis. of parking area from lobby	2.20
7.	Distance from elevator to apt.*	1.85
8.	Road separation*	1.80
9.	Vis. from elevator door or general circulation stair to apartment door*	1.80
10.	Visibility of mail room	1.10
		25.00

	APARTMENTS	
1.	Size of apartment*	3.75
2.	Sunlight in apartment*	3.20
3.	Window size*	3.20
4.	Visual privacy--apt. to apt.*	3.20
5.	Visual privacy--street to apt.	1.75
6.	Balconies	1.70
7.	Daylight in hallways	1.50
8.	Distance from parking to garage exit*	1.50
9.	Daylight in kitchen	1.50
10.	Pram and bicycle storage	1.30
11.	Waste storage facilities*	1.20
12.	Garbage pickup facilities	1.20
		25.00

III Housing Quality Program

PROGRAM ELEMENTS *(Built Up Street District)*	MAXIMUM VALUE
1. STREET WALL SETBACK	4.55
2. SUNLIGHT IN OPEN SPACE	3.60
3. LENGTH OF STREET WALL	3.60
4. SHADOW ON BUILDINGS	3.05
5. HEIGHT OF STREET WALL	3.05
6. STREET TREES	2.85
7. HEIGHT OF BUILDING	2.15
8. TRANSPARENCY RATIO AT GROUND FLOOR	2.15
	25.00

PROGRAM ELEMENTS *(Non Built Up Street District)*	MAXIMUM VALUE
2. SUNLIGHT IN OPEN SPACE	4.70
3. LENGTH OF STREET WALL	7.55
4. SHADOW ON BUILDINGS	5.40
6. STREET TREES	4.15
8. TRANSPARENCY RATIO AT GROUND FLOOR	3.20
	25.00

Neighborhood Impact Program

RELEVANT SECTIONS LISTED UNDER "DEFINITIONS AND PROCEDURES"
Actual Shadow, Built Up Street District, Grading Developments in More than one Street District, Maximum Shadow, Neighborhood Grid, Non Built Up Street District, Shadow Calculation, Street District, Street Wall, Street Wall Setbacks

1. STREET WALL SETBACK

GOAL

To maintain neighborhood scale by matching new and existing setbacks.

PROGRAM

The *street wall setbacks* occurring at the extreme ends of the proposed building should equal the setbacks of the nearest existing buildings. The *intermediate street wall setbacks* of the proposed building should fall within an area determined by the location of the existing buildings.

(To establish the *proposed street wall setback*, the *existing street wall setback* and the *intermediate street wall setback*, see *street wall setbacks* in the "Definitions and Procedures" section.)

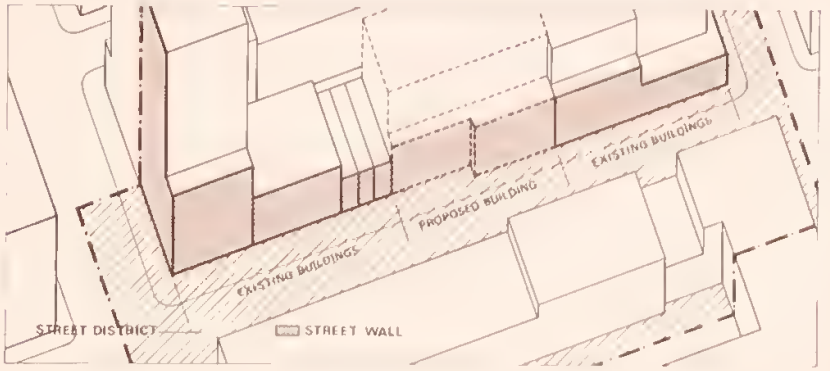
The final compliance is the average compliance for all setbacks in a single *street district*. Each *street district* will have at least two *street wall setbacks*. There may be more if the site is intersected by a public street or if the street property line frontage is not contiguous.

COMPLIANCE

(A/B)100 = %: when the proposed setback is more than the existing setback
(B/A)100 = %: when the proposed setback is less than the existing setback

PREFERRED (A)	PROPOSED (B)	SCALE	
		Built Up	Non Built Up
edge of the existing building nearest the proposed building is set back A feet from the street property line (see *street wall setback* #1)	edge of proposed building nearest existing building in A is set back B feet from the street property line	*50% = .00 60% = .38 70% = .79 80% = 1.51 90% = 2.40 100% = 4.55	NOT APPLICABLE

*Minimum permitted



2. SUNLIGHT IN OPEN SPACE

GOAL

To maximize sunlight on nearby off-site open space.

PROGRAM

The proposed development should not cast shadow on open space within the limits of its *maximum shadow*, including sidewalks.

COMPLIANCE

(B/A)100 = %

WORST CONDITION (A) A = sq. ft. of off-site *open space* which potentially could be in shadow (*Maximum Shadow*)	PROPOSED (B) B = sq. ft. of off-site *open space* actually in shadow (*Actual Shadow*)	SCALE Built Up	Non Built Up
		*60% = .00	.00
		40% = .48	.69
		30% = .86	1.23
		20% = 1.43	2.00
		10% = 2.2B	3.09
		0% = 3.60	4.70

*Maximum permitted

3. LENGTH OF STREET WALL

GOAL

To maintain neighborhood scale by visually linking the front of the proposed building to existing adjacent buildings.

PROGRAM

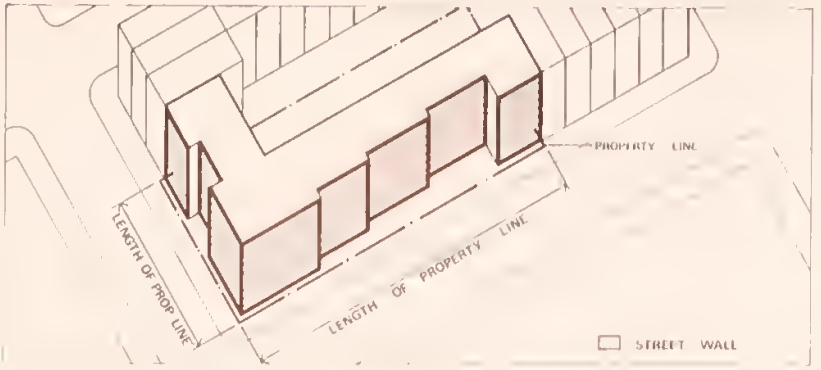
The length of the street wall, as measured in elevation, should be equal to the length of the street property line.

COMPLIANCE

(B/A)100 = %

PREFERRED (A)	PROPOSED (B)	SCALE	
		Built Up	Non Built Up
the length of the street property line = A ft.	the length of the *street wall* as measured in elevation = B ft.	*50% = .00	.00
		60% = .08	.21
		70% = .23	.69
		80% = .51	1.42
		90% = 1.01	2.74
		100% = 3.60	7.55

*Minimum permitted



4. SHADOW ON BUILDINGS

GOAL

To minimize shadow cast on existing surrounding residential and community facility buildings.

PROGRAM

The proposed buildings should not cast shadows on residential and community facility buildings located within the limits of the *maximum shadow*.

- Building surfaces on which there are no legal windows are excluded from this calculation.

COMPLIANCE

(B/A)100 = %

WORST CONDITION (A)
A = sq. ft. of off-site windowed building walls which could potentially be in shadow (*Maximum Shadow*)

PROPOSED (B)
B = sq. ft. of off-site windowed building walls which are in shadow

SCALE	Built Up	Non Built Up
*60% =	.00	.00
40% =	.48	.37
30% =	.81	1.33
20% =	.95	2.20
10% =	1.50	3.40
0% =	3.05	5.40

*Maximum permitted

5. HEIGHT OF STREET WALL

GOAL

To maintain neighborhood scale by matching the height of the portion of the new building facing the street to the height of surrounding buildings.

PROGRAM

The height of the *street wall* of the proposed development should equal the median height of the *street wall* of the existing buildings within the *street district* and on the same side of the street.

- If more than 20% of the *neighborhood grid squares* on that side of the street and within the same *street district* are not built upon, the computation of the median shall be enlarged to include all buildings in the *street district*.
- Determine the median height of the existing *street wall* by computing the median height of only those *neighborhood grid squares* which are built up and have no other built up *grid squares* between them and the street in a perpendicular direction to the street property line.
- The average height of the proposed *street wall* is determined in the same way as the height of the existing *street wall*.
- Grid squares less than 50% built upon shall be regarded as non built upon and shall not be computed.
- A roof height of the *street wall* may be excluded from this computation provided it makes an angle of no more than 45° with the ground.

COMPLIANCE

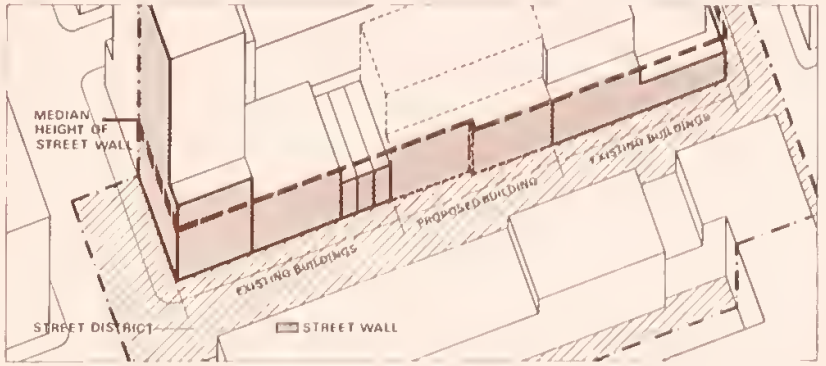
(A/B)100 = %: when the proposed *street wall* height is more than the existing *street wall* height
(B/A)100 = %: when the proposed *street wall* height is less than the existing *street wall* height

PREFERRED (A)
median height of the existing *street wall* is A ft.

PROPOSED (B)
average height of the proposed development's *street wall* is B ft.

SCALE		
	Built Up	Non Built Up
	*50% = .00	
	60% = .31	
	70% = .63	NOT
	80% = 1.13	APPLICABLE
	90% = 2.03	
	100% = 3.05	

*Minimum permitted



6. STREET TREES

GOAL

To assure that sidewalks are shaded and attractive, trees should be planted in the sidewalk.

PROGRAM

There should be one sidewalk tree for every 25 linear feet of sidewalk fronting on the site. Trees may be no smaller than 3 1/2" - 4" caliper and must be planted in no less than a depth of 4' of earth with a grating area of 25 sq. ft. and a minimum planting bed of 50 sq. ft. The measurement of caliper and the specifications for planting shall be in accordance with the standards and specifications of the American Society of Nurserymen.

COMPLIANCE

PREFERRED (A)
A = linear feet of sidewalk fronting on site divided by 25'-0"

PROPOSED (B)
B = no. of street trees qualifying under this section

SCALE

	Built Up	Non Built Up
*50% =	.00	.00
60% =	.19	.27
70% =	.41	.63
80% =	.82	1.40
90% =	1.49	1.90
100% =	2.85	4.15

*Minimum permitted

7. HEIGHT OF BUILDING

GOAL

To maintain neighborhood scale by relating the height of the proposed development to that of the predominant height of the immediate vicinity.

PROGRAM

The average height of the proposed development should be equal to the median height of buildings in its *street district*.

- Determine the primary height in each *neighborhood grid square*. Use the lowest height when the square is equally divided among two or more heights. Squares less than 50% built upon shall not be computed.

COMPLIANCE

(A/B)100 = %: when the proposed median height is more than the existing median height

(B/A)100 = %: when the proposed median height is less than the existing median height

PREFERRED (A)	PROPOSED (B)	SCALE	
		Built Up	Non Built Up
median height of all buildings in the *street district* is A ft.	average height of the section of the proposed development in the *street district* is B ft.	*50% = .00 60% = .22 70% = .46 80% = .93 90% = 1.55 100% = 2.15	NOT APPLICABLE

*Minimum permitted

8. TRANSPARENCY RATIO AT GROUND FLOOR

GOAL

To encourage visible activity at the ground level of buildings facing the street.

PROGRAM

The portion of the *street wall* frontage, as measured from a sidewalk elevation, which is between +3'-0" and +14'-0" should be 85% transparent in commercial zones and 65% transparent in residential zones.

- Transparent surfaces are glazed walls permitting a view into an enclosed space or openings which permit a view into *private outdoor space*.

COMPLIANCE

(B/A)100 = %

PREFERRED (A)	PROPOSED (B)	SCALE	
		Built Up	Non Built Up
(street frontage in commercial zone) X (11.9 ft.) + (street frontage in residential zone) X (9.1 ft.) = A	B sq. ft. of transparent surface between +3'-0" and +14'-0" in street elevation	*50% = .00	.00
		60% = .42	.63
		70% = .83	1.27
		80% = 1.24	1.90
		90% = 1.65	2.35
		100% = 2.15	3.20

*Minimum permitted

PROGRAM ELEMENTS	MAXIMUM VALUE
1. TYPE AND SIZE	8.50
2. WINTER SUN	5.00
3. LANDSCAPING	2.75
4. COVERED PARKING	2.65
5. VISIBILITY OF PARKING	2.65
6. TREES	2.45
7. SEATING	1.00
	25.00

Recreation Space Program

RELEVANT SECTIONS LISTED UNDER "DEFINITIONS AND PROCEDURES"
Adult Use Space, Child Use Space, Covered Outdoor Space, Lobby, Mixed Use Space, Open Space, Outdoor Space, Private Outdoor Space, Public Outdoor Space, Recreation Space, Shadow Calculation

1. TYPE AND SIZE

GOAL

To provide *recreation space* appropriate in size and type to the occupancy characteristics of the development. To permit this space to be located outdoors, indoors or in covered open space.

PROGRAM

The proposed development should provide *child use space, mixed use space* (children and adults) and *adult use space* in relation to projected tenancy characteristics. Computation is as follows:

a. Compute the building occupancy according to the following schedule:

Apartment	Occupancy
Studio	1 Adult
1 BR apt.	2 Adults
2 BR apt.	2 Adults & 1 child
3 BR apt.	2 Adults & 2 children
4 BR apt.	2 Adults & 3 children

b. Compute the amount of *recreation space* required according to the following schedule:
   - For *child use space* multiply the number of children by 20 S.F.
   - For *mixed use space* multiply the total number of residents (children plus adults) by 25 S.F.
   - For *adult use space* multiply the number of adults by 100 S.F.

c. The facilities permitted to fulfill space requirements are:

Children	Adult	Mixed
Tot Lot	Passive	Swimming Pool
Intermediate Playground	Rooftop Terrace	Handball
*Nursery Day-care (Public)	Health Club	Tennis Courts
*Nursery Day-care (Private)	Terrace	Basketball
	*Laundry Room	*Meeting Rooms
		Volleyball
		*Shops--Craft
		*Shops--Automotive

*Space may be doubled for computation purposes.

All above facilities must be free to tenants.
Facilities not included may be requested by the applicant.
Detailed requirements for each facility are found in the appendix following this section.

d. Indoor and covered recreation space are not computed as part of the floor area of the building.

COMPLIANCE

(B/A)100 = %
(D/C)100 = %
(F/E)100 = %

a. *Child Use Space*

PREFERRED (A): A = sq. ft. of *child use* recreational space required
PROPOSED (B): B = sq. ft. of *child use space* provided

SCALE	
*75% = .00	
80% = 2.13	
85% = 4.96	X [(A)/(A+C+E)]
90% = 5.73	
95% = 7.22	
100% = 8.50	

b. *Mixed Use Space*

PREFERRED (C): C = sq. ft. of *mixed use space* required
PROPOSED (D): D = sq. ft. of *mixed use space* provided

SCALE	
*60% = .00	
70% = 3.50	
80% = 5.23	X [(C)/(A+C+E)]
90% = 6.65	
100% = 8.50	

c. *Adult Use Space*

PREFERRED (E): E = sq. ft. of *adult use space* required
PROPOSED (F): F = sq. ft. of *adult use space* provided

SCALE	
*50% = .00	
60% = 1.01	
70% = 2.14	X [(E)/(A+C+E)]
80% = 3.77	
90% = 5.65	
100% = 8.50	

*Minimum permitted

	PROGRAM	tot lot	nursery/ daycare -public-	nursery/ daycare -private-	inter. age play-ground -2nd choice-	
min.	Minimum Size	1,500 SF, 25' min. dim.	600 SF.	600 SF.	2,500 SF, 35' min. dim.	
	Minimum Area in Sunlight	2+ for 2 hours	20% for 2 hours	20% for 2 hours	25% for 2 hours	
location	within Private Outdoor Space	Yes	not applicable	not applicable	Yes	
	within Private Open Space	Yes	not applicable	not applicable	Yes	
	within Private Covered Space	15% max	not applicable	not applicable	15% max	
	within Private Indoor Space	not applicable	Yes	Yes	not applicable	
	within Semi-Private Outdoor Space	No	not applicable	not applicable	No	
height above & below curb	fronting on or within Private Outdoor Space	15' max. above At level of outdr space	15' max. above at level of outdr space	15' max. above at level of outdr space	15' max above at level of ourdr space	
	fronting on or within Semi-Private Outdoor Space	not applicable	15' max. above 5' max below	not applicable	No	
	within Private Indoor Space	not applicable	15' max. above at level of ourdr space	15' max. above at level of outdr space	not applicable	
access	Height above and below nearest floor	± 5'	± 5'	± 5'	± 5'	
	Direct access from Private Outdoor Space	not applicable	No	Yes	not applicable	
	Direct access from Lobby	Yes	No (fr s-priv space)	optional	Yes	
	Adjacent to Parking	Not within 30' min	not applicable	not applicable	Not within 30' min.	
win-dows	Front on Private Outdoor Space	not applicable	Optional	Yes	not applicable	
	Front on Semi-Private or Public Outdoor Space	not applicable	Yes	Optional	not applicable	
pol-lution source	Air	35' min horiz at grade or +15' min above grade	not applicable	not applicable	35' min horiz at grade or +15' min above grade	
	Noise	35' min horiz at grade or +15' min above grade	No min.	No min.	35' min horiz at grade or +15' min. above grade	
standards		1. for children 5-10 years 2. equip. to be both kinetic- swings, slides, seesaws, etc. & static- sand boxes, wading pools, climbing apparatus, running & bike spaces 3. benches for sitting @ rate of 1/500 SF, 4. areas around equip. to be surfaced w/resilient mat,- rubber, elastatuf, sand, grass 5. grade diffs bet. lobby & facil. to be accomplished by ramps 6. when adj to intermediate playgrnd--facils. should not be mixed	1 - 5. see NURSERY (private) 6. exterior wall on semi-private and/or public open space to be 50% transparent	1 same elevation as tot lot ±2' 2. grade changes by ramp 3. child's bathrm & adult bathroom 4. long dim. of room on exterior wall 5 for ages 1 - 5 years 6. exterior wall on priv. o.s min. 75% transparent	1. for children 5-10 years 2. equip. to be both kinetic- swings, seesaws, merry-go-round, etc. and static- climbing apparatus, running & bike space 3. benches for sitting @ the rate of 1/800 SF. 4. areas around equip. to be surfaced w/resilient mat. 5. grade diffs. bet. lobby & facil. to be accomplished by ramps 6. when adj to Tot Lot- facils. should not be mixed	

CHILD

	PROGRAM	meeting/social rm. -private-	volleyball	basketball	swimming-pool	handball
min.	Minimum Size	600 SF.	Single court 2,830 SF.	1,550 SF. min for half court	800 SF	Single court 2,250 SF.
	Minimum Area in Sunlight	No min.	No min.	No min.	When outdoors 75% + 4 hours summer solstice	No min.
location	within Private Outdoor Space	not applicable	Yes	Yes	Yes	Yes
	within Private Open Space	not applicable	Yes	Yes	Yes	Yes
	within Private Covered Space	not applicable	Yes	Yes	No	Yes
	within Private Indoor Space	Yes	Yes	Yes	Yes	Yes
	within Semi-Private Outdoor Space	not applicable	No	No	No	No
height above & below curb	fronting on or within Private Outdoor Space	No limit above At level of outdr space	Outdrs 100' max. above At level of outdr space	Outdrs 100' max. above at level of outdr space	Outdrs 150' max above 10' below	Outdr 100' max. above at level of outdr space
	fronting on or within Semi-Private Outdoor Space	No limit above 5' max below	Outdrs 100' max. above 5' max. below	Outdrs 100' max. above 5' max. below	Outdrs 150' max above 10' below	Outdrs 100' max. above 5'-0" below
	within Private Indoor Space	No limit above At level of outdr space	No limit above No limit below	No limit above No limit below	No limit above No limit below	No limit above No limit below
access	Height above and below nearest floor	± 5'	± 5'	± 5'	± 5'	± 5'
	Direct access from Private Outdoor Space	Yes	Yes when indoors and at grade ± 5'	Yes when indoors and at grade ±5'	Yes when indoors and at grade ± 5'-0"	Yes when indoors and at grade ± 5'-0"
	Direct access from Lobby	Yes	Yes when indoors	Yes when indoors	Yes when indoors	Yes when indoors
	Adjacent to Parkeng	not applicable	not applicable	not applicable	not applicable	not applicable
windows	front on Private Outdoor Space	Yes	Yes when indoors	Yes when indoors	Yes when indoors	Yes when indoors
	front on Semi-Private or Public Outdoor Space	Optional	Optional when indoors	Optional when indoors	Optional when indoors	Yes when indoors
pollution source	Air	No min.	When outdrs 35' min. horiz. at grade or +15' min. above grade	When outdrs 35' min horiz at grade or +15' min above grade	When outdrs 35' min horiz at grade or +15' min. above grade	When outdrs 35' min. horiz at grade or +15' min. above grade
	Noise	No min.	When outdrs 35' min. horiz at grade or +15' min. above grade	When outdrs 35' min horiz at grade or +15' min. above grade	When outdrs 35' min. horiz at grade or +15' min. above grade	When outdrs 35' min horiz at grade or +15' min above grade
standards		1 long dimension of room on exterior wall and to be 70% transparent 2 transparency ratio of exterior walls to be 70%	1 min. height throughout 20' 2. lighting level when in covered space or indoor space to meet current standards 3. court dimensions to meet standards	1 min height 20' throughout 2 lighting level in covered space or indoor space to meet current standards 3 court dimensions to meet standards	1 when indrs at least 50% of a wall that corresponds to the long dim. of the pool area should be transparent 2. when indrs and open to the public separate entry should be semi-priv. or public provided from outdoor space.	1 back wall & ceiling to be min 16'-0" high 2 lighting level in covered or indoor space to meet current standards 3 court dimensions to meet standard

MIXED

	PROGRAM	tennis court/s	meeting/social rm. -public-			
min.	Minimum Size	7,200 SF for single court & enclosure	600 SF.			
	Minimum Area in sunlight	No min	No min.			
location	within Private Outdoor Space	Yes	not applicable			
	within Private Open Space	Yes	not applicable			
	within Private Covered Space	Yes	not applicable			
	within Private Indoor Space	Yes	Yes			
	within Semi-Private Outdoor Space	No	not applicable			
height above & below curb	fronting on or within Private Outdoor Space	Outdrs 100' max. above / at level of outdr space	No limit above / At level of outdr space			
	fronting on or within Semi-Private Outdoor Space	Outdrs 100' max above / 5' max below	No limit above / At level of outdr space			
	within Private Indoor Space	No limit above / No limit below	No limit above / At level of outdr space			
access	Height above and below nearest floor	± 5'	± 5'			
	Direct access from Private Outdoor Space	Yes when indoors and at grade ± 5'	No			
	Direct access from Lobby	Yes when indoors	No (fr s-priv. space)			
	Adjacent to Parking	not applicable	not applicable			
win-dows	front on Private Outdoor Space	Yes when indoors	Optional			
	front on Semi-Private or Public Outdoor Space	Yes when indoors	Yes			
pol-lution source	Air	When outdoors 35' min horiz at grade or +15' min above grade	No min.			
	Noise	When outdoors 35' min horiz at grade or + 15' min above grade	No min.			
standards		1 when indrs under perm. or temp struc min. ht at edge of court 27' & 32' at center of net 2. when indrs and open to the pub., separate entry should be provided fr s-priv. or pub. outdr space 3. lighting level in covered or indr space to meet current stands 4 court dims to meet standard.	1 long dim. of room on exterior wall and to be 70% transparent 2. transparency ratio of exterior walls to be 70%			

MIXED

ADULT

	PROGRAM	passive space	terrace	rooftop terrace	health club type facilities	shop-automotive
min.	Minimum Size	None	200 SF. min.; 400 max.	Up to 25% of adult SF, no quitement max. 20' min. dim.	No min.	300 SF. 10' min. dim.
	Minimum Area in Sunlight	No min.	No min.	No min	No min.	No min.
location	within Private Outdoor Space	Yes	Yes	Yes	Yes As adjunct to indoor uses	No
	within Private Open Space	Yes	Yes	Yes	Yes As adjunct to indoor uses	No
	within Private Covered Space	25% max	25% max by struc. less than 18' above	25% max	Yes As adjunct to indoor uses	No
	within Private Indoor Space	No	No	No	Yes	Yes
	within Semi-Private Outdoor Space	Yes	25% max. by struc. less than 18' above	No	Yes As adjunct to indoor uses	No
height above & below curb	fronting on or within Private Outdoor Space	15' max. above At level of outdr space	No limit above Max. 5' below	40' min. to 200' max above curb	No limit above At level of outdr space	unlim. above
	fronting on or within Semi-Private Outdoor Space	5' max above At level of outdr space	No limit above Max. 5' below	40' min. to 200' max above curb	No limit above 10' max below	unlim. above
	within Private Indoor Space	not applicable	not applicable	not applicable	No limit	unlim. above
access	Height above and below nearest floor	± 5'	No limit above	at same level	± 5'	± 5'
	Direct access from Private Outdoor Space	not applicable	Optional	Optional	Optional	Optional
	Direct access from Lobby	Yes	not applicable	Yes	Yes	Optional
	Adjacent to Parking	Optional	not applicable	not applicable	n.a.	Yes
windows	front on Private Outdoor Space	not applicable	not applicable	not applicable	Yes	Yes
	front on Semi-Private or Public Outdoor Space	not applicable	not applicable	not applicable	Optional	No
pollution source	Air	No min	When outdrs 35' min. horiz at grade or +15' min. above grade	100' from smokestack	No min.	No min
	Noise	No min	When outdrs 35' min. horiz at grade or +15' min. above grade	50' from cooling tower	No min.	No min.
standards		1 the passive space is to be apportioned as follows: a amount of passive space in a-priv. outdr space can be no more than 25% of total Adult rqmnt b. and cannot be greater in area than passive space in priv. outdr space	1. only 1 apt. may front on a terrace 2. when on grade (-5'--+15') there can be a direct entry to the terrace when fronting on priv. outdr space 3 when fronting on a-priv. or pub. outdr space, the entry from that space must have a locked entry.	1. the terrace be surfaced w/a durable paving material 2 at least 15% of the terrace be cvrd either permanently or w/awnings, etc 3 that following facils be provided a seating b bathrooms c drinking fountain	1. would include amnh facilities as sauna, steam baths, various types of baths, swimming pools, showers, exercise equipment and lockers. 2. have a min. ht. of 12'-0" throughout 3 exterior wall to be a min. of 50% transparent 4 When open to pub., entrance to be provided from a-priv. or public open space. 5. exterior spaces are not counted toward interior recreation space.	1. equiped w/ bathroom 2. appropriately equipped w/ benches & pit 3 must be accessible to the tnts for 12 hrs a day, 7 days a week 4. for tenants only

	PROGRAM	shop-crafts	laundry room			
min.	Minimum Size	400 SF. 15' min. dim.	400 SF.			
	Minimum Area in Sunlight	no min	25 min.			
location	within Private Outdoor Space	No	No			
	within Private Open Space	No	No			
	within Private Covered Space	No	No			
	within Private Indoor Space	Yes	Yes			
	within Semi-Private Outdoor Space	No	No			
height above & below curb	fronting on or within Private Outdoor Space	No limit above At level of outdr space	No limit above At level of outdr space			
	fronting on or within Semi-Private Outdoor Space	No limit above 5' max below	No limit above 5' max below			
	within Private Indoor Space	No limit above At level of outdr space	No limit above At level of outdr space			
access	Height above and below nearest floor	± 5'	same level			
	Direct access from Private Outdoor Space	Optional	Yes			
	Direct access from Lobby	Yes	Yes			
	Adjacent to Parking	not applicable	not applicable			
windows	Front on Private Outdoor Space	Yes	Yes			
	Front on Semi-Private or Public Outdoor Space	Optional	Optional			
pollution source	Air	No min.	No min.			
	Noise	No min.	No min.			
standards		1 must have bathrm & workalnk 2 equiped w/machine tools and/or sewing/weaving, and/or pottery 3 exterior wall on priv. o.s. at least 40% transparent 4. be accessible to tnts 12 hrs a day, 7 days a week 5. for tenants only	1 long dim. of room on exterior wall 2 at least 50% transparent 3 seating 4 for tenants only			

ADULT

2. WINTER SUN

GOAL

To maximize sunlight in *open space*.

PROGRAM

All *outdoor space* should receive sunlight between 9 A.M. and 3 P.M. during the Winter Solstice. Sunlight is measured as follows:

a. Measure amount of S.F. of *outdoor space* receiving sunlight at 9 A.M., 12 Noon and 3 P.M. during the Winter Solstice.
b. Divide by three to find the average.

(Procedures are explained further in the "Definitions and Procedures" section under *Shadow Calculation*.)

COMPLIANCE

(B/A)100 = %

PREFERRED (A)	PROPOSED (B)	SCALE
A = sq. ft. of *outdoor space*	B = average sq. ft. of *outdoor space* receiving winter sun, excluding parking area	0% = .00 20% = .35 40% = 1.00 60% = 2.15 80% = 3.45 100% = 5.00

3. LANDSCAPING

GOAL

To provide landscaped outdoor spaces and attractive buffers between recreation areas.

PROGRAM

The percent of *open space* which is landscaped should be based on the following schedule:

	R3	R4	R5	R6	R7	R8	R9	R10
percentage of landscaped *outdoor space*	70	65	60	50	45	35	30	25

The standards for landscaping the *open space* are:

a. 2'-0" of soil for grass and ground cover
b. 3'-0" of soil for shrubs, bushes and low ornamental trees

COMPLIANCE

(B/A)100 = %

PREFERRED (A)
A = one half of *outdoor space* sq. ft.

PROPOSED (B)
B = sq. ft. of *landscaped outdoor space*

SCALE
0% = .00
20% = .28
40% = .60
60% = 1.00
80% = 1.64
100% = 2.75

4. COVERED PARKING

GOAL

To visually and spatially separate parking from *outdoor space* and apartments.

PROGRAM

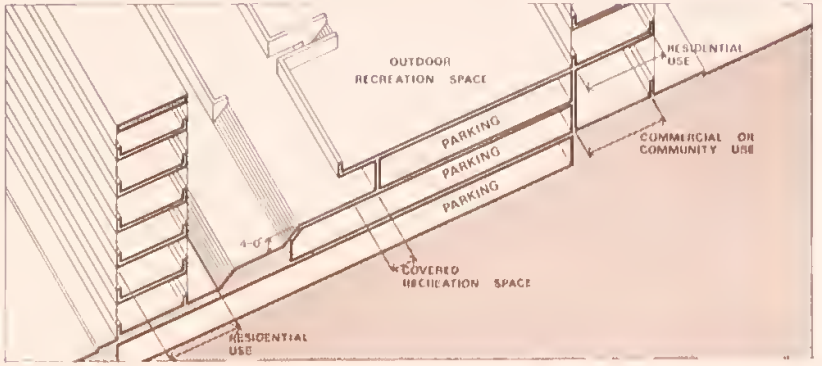
In plan view, the perimeter of a roofed parking structure should be contiguous to or underneath a residential, commercial, community facility structure or covered recreation space.

- For structures entirely below grade or totally under a building, the compliance shall be 100%.
- For parking structures with a roof surface of no more than 4'-0" above grade and with totally enclosed walls, the compliance shall be 100%.
- For unenclosed parking, the compliance shall be 0%.
- Roof parking is considered to be unenclosed parking.
- For multi-level structures, each floor is computed separately and a weighted average is found based on the perimeter of each floor.

COMPLIANCE

(B/A)100 = %

PREFERRED (A)	PROPOSED (B)	SCALE
A = length of perimeter wall of parking structure by floors	B = length of perimeter wall of parking structure by floors which is contiguous or underneath an enclosed residential, commercial or community facility structure in plan view	0% = .00 50% = .10 70% = .64 80% = 1.08 90% = 1.64 100% = 2.65



5. VISIBILITY OF PARKING

GOAL

TO reduce the visual impact of parked automobiles.

PROGRAM

A parking lot which is open to the sky, or a roof of a parking structure used for open air parking, should not be larger than the sizes specified below:

grade level to nearest sidewalk elevation	size of lot or parking roof
-3'-0" and more	20,000
-2'-11" to +3'-0"	18,000
3'-1" to 6'-0"	16,000
6'-1" to 15'-0"	20,000
15'-0" to 23'-0"	24,000

Parking lots or parking roofs may be connected to one another provided the sum of the openings between any two lots is no greater than 2% of their total perimeters.

- When there is more than one parking lot a weighted average compliance shall be found. The weighting factor shall be the size of the lots. All permanently roofed, covered or underground lots are considered to be in 100% compliance.

COMPLIANCE

(A/B)100 = %

PREFERRED (A)
A = required sq. ft. as determined in program

PROPOSED (B)
B = sq. ft. of lot

SCALE
*50% = .00
60% = .21
70% = .55
80% = 1.02
90% = 1.68
100% = 2.65

*Minimum permitted

6. TREES

GOAL

To insure that *outdoor space* is shaded and attractive.

PROGRAM

Provision of trees should be based on the following schedule:

	R3	R4	R5	R6	R7	R8	R9	R10
1" caliper per X sq. ft. of site	125	150	200	250	300	350	400	500

Qualifying trees must:

a. be at least 4" caliper
b. be planted in 4'-0" of earth
c. be planted in at least 200 cubic feet of soil
d. have adequate drainage

- Existing trees which remain after development may be counted if they meet qualifying conditions.

COMPLIANCE

(B/A)100 = %

PREFERRED (A)
A = total caliper required as per schedule

PROPOSED (B)
B = total caliper of all proposed trees as per specifications

SCALE
*50% = .00
60% = .28
70% = .67
80% = 1.04
90% = 1.61
100% = 2.45

*Minimum permitted

7. SEATING

GOAL

To encourage full use of *outdoor space* by providing adequate seating facilities.

PROGRAM

Provision of seating should be based on the following schedule:

	R3	R4	R5	R6	R7	R8	R9	R10
occupant per seat	6	7	8	10	12	16	25	50

Number of occupants is computed in accordance with the procedures in program element B1.
All seats qualifying under this section must:

a. be within 15'-0" of a deciduous tree
b. be visible from 1/4 of the apartments
c. receive sun for 2 continuous hours between 10 A.M. and 2 P.M. on December 21
d. be at least 15'-0" from a parked car
e. be 18" wide by 18" deep.

COMPLIANCE

(B/A)100 = %

PREFERRED (A)
A = seats required

PROPOSED (B)
B = seats provided

SCALE
0% = .00
20% = .11
40% = .23
60% = .37
80% = .60
100% = 1.00

PROGRAM ELEMENTS	MAXIMUM VALUE
1. VISIBILITY FROM PUBLIC SPACE TO ELEVATOR DOOR OR GENERAL CIRCULATION STAIR	3.90
2. VISIBILITY OF PRIVATE OUTDOOR SPACE FROM LOBBY	3.90
3. SURVEILLANCE FROM LARGE APARTMENTS	3.30
4. NUMBER OF APARTMENTS SERVICED BY LOBBY	2.90
5. VISIBILITY OF PARKING FROM EXIT POINT	2.25
6. VISIBILITY OF PARKING AREA FROM LOBBY	2.20
7. DISTANCE FROM ELEVATOR TO APARTMENT	1.85
8. ROAD SEPARATION	1.80
9. VISIBILITY FROM ELEVATOR DOOR OR GENERAL CIRCULATION STAIR TO APARTMENT DOOR	1.80
10. VISIBILITY OF MAIL ROOM	1.10
	25.00

Security and Safety Program

RELEVANT SECTIONS LISTED UNDER "DEFINITIONS AND PROCEDURES"
Lobby, Lobby Vestibule, Pedestrian Parking Garage Exit, Threshold Point

1. VISIBILITY FROM PUBLIC SPACE TO ELEVATOR DOOR OR GENERAL CIRCULATION STAIR

GOAL

To permit surveillance of the *lobby* from the street, the path from the sidewalk to the elevator door should be visible.

PROGRAM

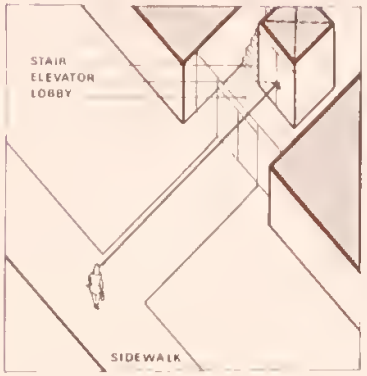
From a *threshold point* on the sidewalk it should be possible to see the waiting space directly in front of the *lobby* elevator doors or general circulation stair when in non-elevator buildings.

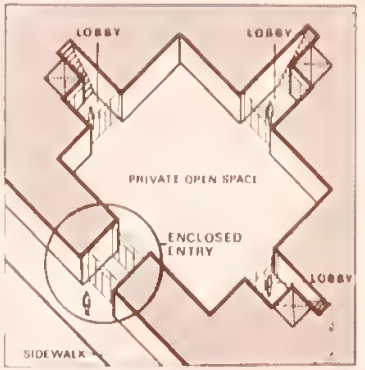
- Apartments which are entered directly from the street are in 100% compliance. When a development contains apartments directly serviced from the street and apartments serviced from within the building, a weighted average (based on the number of apartments in each type) shall be computed to find overall compliance.
- When access to a building is from private open space, these access points need not comply with this program provided access to the private open space is only through an enclosed structure with locked doors which can only be activated by keys and a 2-way intercom. In such cases this structure should be measured for program compliance.
- The path along which visibility is measured shall have an average lighting level of 10 foot candles.

COMPLIANCE

(B/A)100 = %

PREFERRED (A)	PROPOSED (B)	SCALE
A = number of elevators or general circulation stair entrances in entry *lobby*	B = number of elevator doors or general circulation stair entrances in *lobby* which are visible from *threshold point* on sidewalk	0% = .00 20% = .78 40% = 1.44 60% = 2.22 80% = 3.00 100% = 3.90





2. VISIBILITY OF PRIVATE OUTDOOR SPACE FROM LOBBY

GOAL

To make *private outdoor space* visible from the *lobby*.

PROGRAM

All private open space should be visible from the *threshold point* of the *lobby vestibule*.

- When more than one *private outdoor space lobby* opens onto *private outdoor space*, visibility should be computed as the average visibility for each *lobby*.
- Permanent structures 5'-0" high are obstructions and render the area behind them invisible.
- Apartments which exit directly into *private open space* are in 100% compliance. When a development contains apartments which exit directly into *private open space* and apartments which exit through a *lobby*, a weighted average (based on the number of apartments in each type) shall be computed to find overall compliance.
- For *private outdoor space* which is not entered onto from lobbies (i.e. - rooftop *recreation space*) the entry point to that space shall be considered to be a *lobby* provided it connects directly to an elevator or, in the case of a non-elevator building, a general circulation stairway.

COMPLIANCE

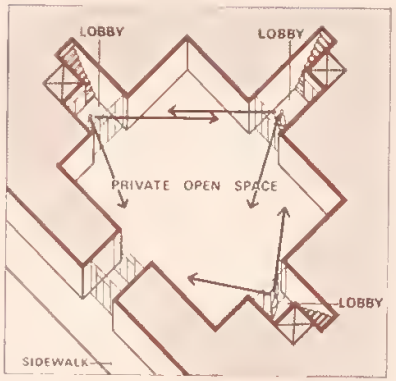
(B/A)100 = %

PREFERRED (A)
A = sq. ft. of *private outdoor space*

PROPOSED (B)
B = sq. ft. of *private outdoor space* visible from *lobby*

SCALE
*50% = .00
60% = .77
70% = 1.53
80% = 2.31
90% = 3.90

*Minimum permitted



3. SURVEILLANCE FROM LARGE APARTMENTS

GOAL

To concentrate the placement of large families on lower floors in order to maximize surveillance of *outdoor space* and minimize the need for children to use elevators.

PROGRAM

Large apartments should be concentrated on the first 4 floors.

COMPLIANCE

(B/A)100 = %

PREFERRED (A)
A = number of apartments on first 4 floors

PROPOSED (B)
B = number of 2 BR apartments and larger on first 4 floors of building

SCALE
0% = .00
20% = .66
40% = .80
60% = 1.99
80% = 2.65
100% = 3.30

4. NUMBER OF APARTMENTS SERVICED BY LOBBY

GOAL

To foster intimacy and recognition among tenants by limiting the number of tenants using one *lobby*.

PROGRAM

Lobbies should service no more than 40 apartments.

COMPLIANCE

(B/A)100 = %

PREFERRED (A)	PROPOSED (B)	SCALE
A = number of apartments in the proposed development	B = number of apartments complying with program	0% = .00 20% = 1.10 40% = 1.83 60% = 2.24 80% = 2.57 100% = 2.90

5. VISIBILITY OF PARKING FROM EXIT POINT

GOAL

To insure a direct and secure walk from a parked car to the garage or lot exit.

PROGRAM

The entire parking area should be visible from a *threshold point* at the exit from the parking garage or the outdoor lot.

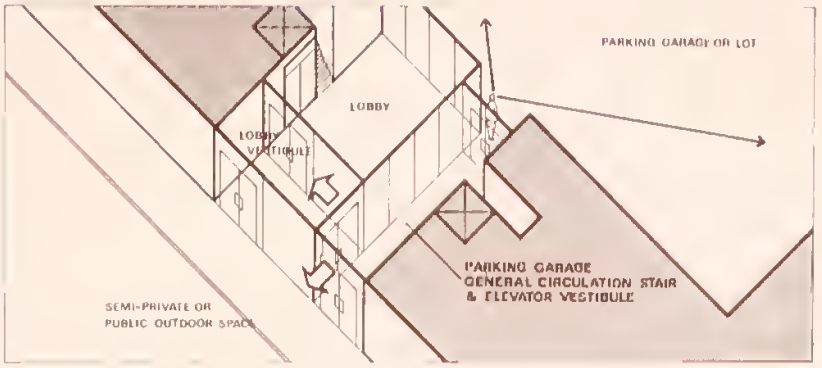
- For an outdoor lot, the threshold occurs at the exit from the lot which is on the most direct path to the *lobby*.
- For enclosed garages, the threshold occurs at the vestibule for the parking garage elevator or general circulation stair. This elevator or general circulation stair must exit in semi-private or public space at a point visible from the *lobby*. It must be no more than 75'-0" from the *lobby*.
- When there is more than one garage, lot, or qualifying entry, visibility shall be average for all entries.
- Permanent structures over 5'-0" high are obstructive and render the area behind them invisible.

COMPLIANCE

(B/A)100 = %

PREFERRED (A)	PROPOSED (B)	SCALE
A = sq. ft. of garage or lot area	B = sq. ft. of garage or lot area visible from the *threshold point*	*60% = .00 70% = .20 80% = .48 90% = 1.05 100% = 2.25

*Minimum permitted



6. VISIBILITY OF PARKING AREA FROM LOBBY

GOAL

To permit surveillance of parking areas from within the building.

PROGRAM

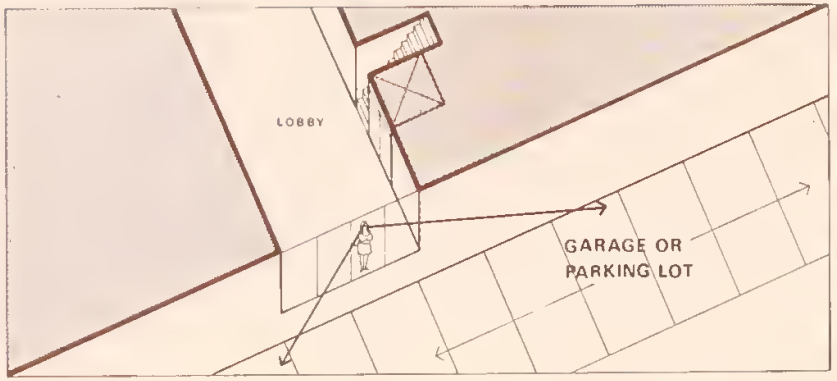
From the *lobby* it should be possible to see the entire floor area of the garage or the parking lot.

- A distance of greater than 75 feet is not visible.
- Parking to be for tenants.

COMPLIANCE

(B/A)100 = %

PREFERRED (A)	PROPOSED (B)	SCALE
A = sq. ft. of garage or parking lot	B = sq. ft. of garage or parking lot visible from *lobby*	0% = .00 20% = .44 40% = .88 60% = 1.32 80% = 1.76 100% = 2.20



7. DISTANCE FROM ELEVATOR TO APARTMENT

GOAL

To minimize the walking distance from elevators or general circulation stairs to apartments.

PROGRAM

No apartment shall be more than 60 feet from the closest elevator.

- For purposes of computation:
  a. In buildings less than 7 floors, the stair landings on the second floor may be substituted for the elevator doors.
  b. On floors which are entered directly from *outdoor space*, the *threshold point* of the building *lobby* on the floor is substituted for the elevator doors.
  c. In non-elevator buildings, the *threshold point* of the general circulation stair floor landing is substituted for the elevator door.
  d. Apartments entered directly from *open space* are in 100% compliance.

COMPLIANCE

(B/A)100 = %

PREFERRED (A)	PROPOSED (B)	SCALE
A = number of apartments in buildings	B = number of apartments less than 60'-0" from the elevator door	*70% = .00 85% = 1.20 100% = 1.85

*Minimum permitted

8. ROAD SEPARATION

GOAL

Developed *recreation space* should be separated from on-site vehicular roadways and parking by buffer zones.

PROGRAM

No more than 50% of the *outdoor space* of a development should be within 30' of areas reserved for automobile use. Such areas include on-site roadways and parking lots.

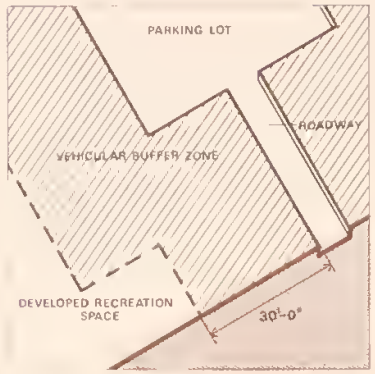
- When the parking lot is at a different elevation than grade, the distance may be measured in section from the edge of the developed space to the edge of the automobile space.

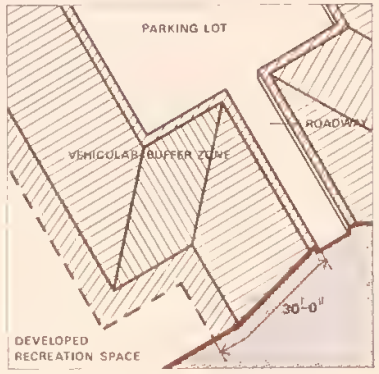
COMPLIANCE

(B/A)100 = %

WORST CONDITION (A)	PROPOSED (B)	SCALE
A = sq. ft. of *outdoor space* less on-site roads and parking	B = sq. ft. of *outdoor space* within 30' of the edges of on-site roadway and parking lots	*50% = .00 40% = .15 30% = .33 20% = .52 10% = .90 0% = 1.80

*Maximum permitted





9. VISIBILITY FROM ELEVATOR DOOR OR GENERAL CIRCULATION STAIR TO APARTMENT DOOR

GOAL

To maximize visibility from the elevator to the farthest apartment on a floor.

PROGRAM

The path from the elevator door to the apartment door should be unobstructed and visible. To aid visibility a single, shatterproof non-distorted floor to ceiling mirror is permitted.

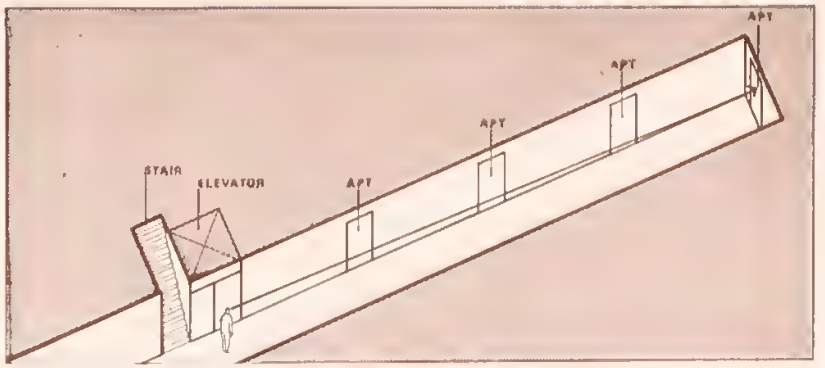
- For the purposes of computation:
  a. In buildings less than 7 floors, the stair landings on the second floor may be substituted for the elevator doors.
  b. On floors which are entered directly from *outdoor space*, the *threshold point* of the building *lobby* on the floor is substituted for the elevator doors.
  c. In non-elevator buildings, the *threshold point* of the general circulation stair floor landing is substituted for the elevator door.
  d. Apartments entered directly from *open space* are in 100% compliance.

COMPLIANCE

(B/A)100 = %

PREFERRED (A)	PROPOSED (B)	SCALE
A = number of apartment front doors	B = number of apartment front doors which comply with program	*70% = .00 85% = .95 100% = 1.80

*Minimum permitted



10. VISIBILITY OF MAIL ROOM

GOAL

To reduce crime and vandalism occurring in mail rooms, such spaces should be completely visible from the *lobby*.

PROGRAM

The mail room should be completely visible from the *lobby vestibule*, the elevator door threshold and the general circulation stair threshold. The visibility of the *lobby* is the sum of the visibility at each of these points.

- Mail rooms or areas which are part of the *lobby* are 100% visible.

COMPLIANCE

(B/A)100 = %

PREFERRED (A)	PROPOSED (B)	SCALE
A = sq. ft. of mail room	B = sq. ft. of mail room visible in accordance with program	0% = .00 20% = .11 40% = .22 60% = .3B 80% = .59 100% = 1.10

PROGRAM ELEMENTS	MAXIMUM VALUE
1. SIZE OF APARTMENT	3.75
2. SUNLIGHT IN APARTMENT	3.20
3. WINDOW SIZE	3.20
4. VISUAL PRIVACY--APARTMENT TO APARTMENT	3.20
5. VISUAL PRIVACY--STREET TO APARTMENT	1.75
6. BALCONIES	1.70
7. DAYLIGHT IN HALLWAYS	1.50
8. DISTANCE FROM PARKING TO GARAGE EXIT	1.50
9. DAYLIGHT IN KITCHEN	1.50
10. PRAM AND BICYCLE STORAGE	1.30
11. WASTE STORAGE FACILITIES	1.20
12. GARBAGE PICKUP FACILITIES	1.20
	25.00

Apartments Program

RELEVANT SECTIONS LISTED UNDER "DEFINITIONS AND PROCEDURES"
Semi-Private Recreation Space, Public Space, Pedestrian Parking Garage Exit, Lobby

1. SIZE OF APARTMENT

GOAL

To create large, useable apartments.

PROGRAM

The net square feet of apartments less any space assigned to circulation, bathroom or storage should be based on the following schedule:

Apartment	Net Square Feet
Studio	550 sq. ft.
1 BR	715 sq. ft.
2 BR	940 sq. ft.
3 BR	1,165 sq. ft.
4 BR	1,365 sq. ft.
5 BR	1,550 sq. ft.

COMPLIANCE

(B/A)100 = %

PREFERRED (A)
(number of studio apts. times 550)
+ (number of 1 BR apts. times 715)
+ (number of 2 BR apts. times 940)
+ (number of 3 BR apts. times 1,165)
+ (number of 4 BR apts. times 1,365)
+ (number of 5 BR apts. times 1,550)
= A

PROPOSED (B)
total net sq. ft. of apartment = B

SCALE
*60% = .00
70% = .93
80% = 1.86
90% = 2.86
100% = 3.75

*Minimum permitted

APARTMENTS

2. SUNLIGHT IN APARTMENT

GOAL

To orient a building so that each apartment receives sunlight.

PROGRAM

Each apartment shall have one room of at least 80 square feet receiving sunlight through a legal window for a two hour period between 8 A.M. and 4 P.M. (bathrooms are not included) during the Winter Solstice. An apartment shall be considered to have received sunlight when sunlight falls on its window surface.

COMPLIANCE

(B/A)100 = %

PREFERRED (A)
A = number of apartments in development

PROPOSED (B)
B = number of apartments complying with program

SCALE	
*40%	= .00
60%	= .54
80%	= 1.45
90%	= 2.18
100%	= 3.20

*Minimum permitted

3. WINDOW SIZE

GOAL

To maximize sunlight, views and a feeling of spaciousness, windows should be large.

PROGRAM

There shall be 1 square foot of window for every 2.5 square feet of net floor area.

COMPLIANCE

(B/A)100 = %

PREFERRED (A)	PROPOSED (B)	SCALE
A = net sq. ft. of apartments divided by 2.5	B = total sq. ft. of residential window surface	*20% = .00 40% = .80 60% = 1.60 80% = 2.40 100% = 3.20

*Minimum permitted

4. VISUAL PRIVACY—APARTMENT TO APARTMENT

GOAL

To create visual privacy from apartments to commercial and community facilities, parking structures and other apartments on the same zoning lot.

PROGRAM

Privacy is defined as the limiting of one's ability to see into a neighbor's apartment. The degree to which an apartment room is private depends upon the depth one can see into an apartment (penetration), the distance between windows and the length of window.

- Privacy is established as follows:
  a. Draw a sight line through the center lines of the two windows in question.
  b. Project that sight line into both rooms until they intersect a wall. That distance measured along the wall from that point to the exterior wall is the extent of penetration. Penetration is determined for both windows.
  c. The average of the penetration distances between any two windows is found. The chart below established the minimum distances required between these windows. Windows which comply are considered private.

Penetration into Rooms	Distance between Windows
0'	0'
2.5'	10'
5'	30'
10'	45'
15'	60'
20'	70'
20' +	80'

- In no case can a window or a wall be located within 30' directly in front of a window.
- In the case of continuous strip windows set in front of the columns, a window is considered to be the distance between column faces. This also applies to parking structures which may not have windows but do have strip openings. Clerestory type windows with sill heights of 5'-6" above the floor are considered private.

COMPLIANCE

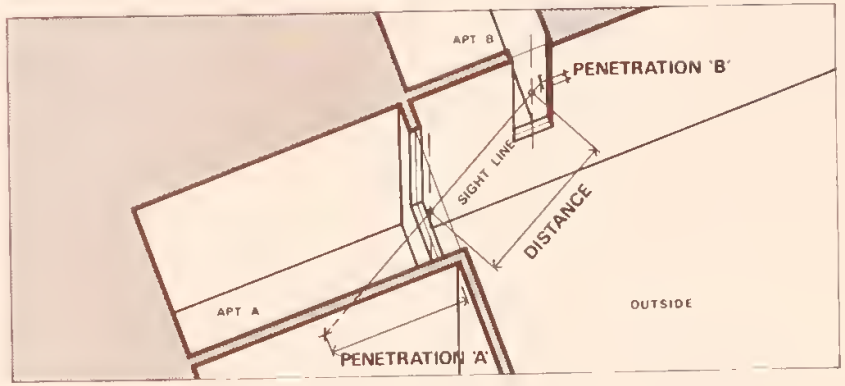
(B/A)100 = %

PREFERRED (A)
A = apartments in proposed building

PROPOSED (B)
B = apartments which are visually private in terms of this program

SCALE	
*50%	= .00
60%	= .18
70%	= .44
80%	= .98
90%	= 1.61
100%	= 3.20

*Minimum permitted



5. VISUAL PRIVACY–STREET TO APARTMENT

GOAL

To create visual privacy in ground floor apartments from pedestrians on the street.

PROGRAM

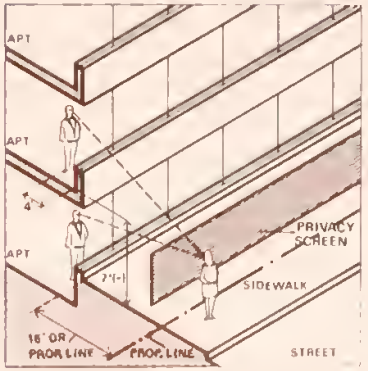
All apartment rooms, excluding kitchens, which have a floor elevation less than 7'-0" above the nearest sidewalk elevation and window with views of *semi-private* and/or *public space* shall be "visually private".

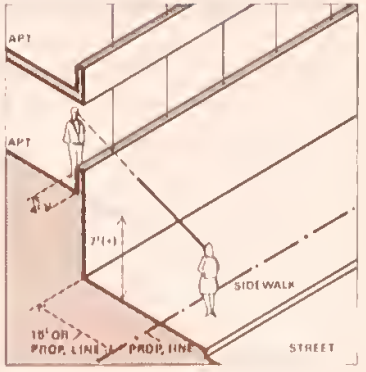
- A "visually private" room is one in which direct eye contact is not possible between a person standing in a room, four feet behind a window and a person standing 15'-0" in front of the window in *semi-private* or *public space*.
- Eye level is 5'-0".

COMPLIANCE

(B/A)100 = %

PREFERRED (A)	PROPOSED (B)	SCALE
A = apartment rooms with a floor elevation of less than 7'-0" and with windows facing *semi-private* or *public space*	B = apartment rooms with a floor elevation of less than 7'-0" and with windows facing *semi-private* or *public space* which are "visually private"	0% = .00 20% = .35 40% = .70 60% = 1.05 80% = 1.40 100% = 1.75





6. BALCONIES

GOAL

To provide spacious sheltered balconies, visually integrated with the adjoining rooms.

PROGRAM

To qualify, a balcony must:

a. have a minimum dimension of 6'-0"
b. have at least 40% of its area contained by the exterior wall of the building
c. have walls adjoining the apartment which are 50% glass.

The size of balconies should meet the following schedule:

Apartment	Size of Balcony
Studio	75 sq. ft.
1 BR	75 sq. ft.
2 BR	105 sq. ft.
3 BR	135 sq. ft.
4 BR	175 sq. ft.

- Enclosed ground floor space which is private to the apartment also qualifies.

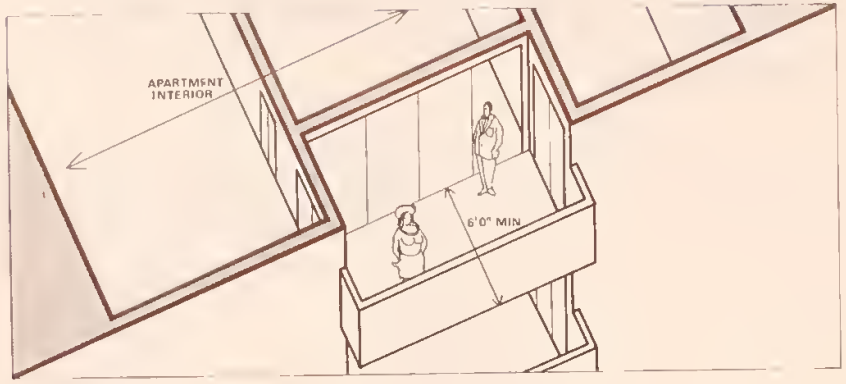
COMPLIANCE

(B/A)100 = %

PREFERRED (A)
(number of studio and 1 BR apartments times 75) + (number of 2 BR apts. times 105) + (number of 3 BR apts. times 135) = (number of 4 BR apts. times 175) = A

PROPOSED (B)
total sq. ft. of balcony area complying with program = B

SCALE
0% = .00
20% = .33
40% = .67
60% = 1.00
80% = 1.34
100% = 1.70



7. DAYLIGHT IN HALLWAYS

GOAL

To provide natural light and ventilation in hallways.

PROGRAM

There should be 1 sq. ft. of operable window in a hallway for each 15 sq. ft. of hallway floor area.

- The window may be in an adjacent stair tower provided the hallway joins the stair tower with a surface which is completely transparent floor to ceiling.

COMPLIANCE

(B/A)100 = %

PREFERRED (A)	PROPOSED (B)	SCALE
total sq. ft.	sq. ft. of	0% = .00
of hallway divided	operable window	20% = .79
by 15 = A sq. ft.	in hallways =	40% = 1.03
	B sq. ft.	60% = 1.21
		80% = 1.37
		100% = 1.50

8. DISTANCE FROM PARKING TO GARAGE EXIT

GOAL

To minimize the walking distance from a parked car to the garage or lot exit.

PROGRAM

The maximum walking distance from a parked car to the garage exit should be no more than 50'-0".

- For on-grade lots, the distance shall be measured from the stall farthest from the *lobby*.
- For enclosed garages, the distance shall be measured from the stall farthest from the vestibule of a *pedestrian parking garage exit*.

COMPLIANCE

(A/B)100 = %

PREFERRED (A)
50'-0" = A

PROPOSED (B)
B = greatest walking distance from a parked car to a garage exit

SCALE	
*25%	.00
50%	.75
75%	1.12
100%	1.50

*Minimum permitted

9. DAYLIGHT IN KITCHEN

GOAL

To provide daylight in all kitchens.

PROGRAM

All kitchens shall receive daylight.

a. There shall be a window in the kitchen or
b. the edge of the kitchen should be no further than 8'-6" from a window in an adjacent room provided the opening between the kitchen and the windowed room is at least 28 SF.

COMPLIANCE

(B/A)100 = %

PREFERRED (A)	PROPOSED (B)	SCALE
A = no. of kitchens in proposed development	B = no. of kitchens receiving daylight	0% = .00 20% = .45 40% = .80 60% = 1.05 80% = 1.31 100% = 1.50

10. PRAM AND BICYCLE STORAGE

GOAL

To provide sufficient amounts of secure and convenient pram and bicycle storage.

PROGRAM

There should be 5 sq. ft. of pram and bicycle storage for each additional bedroom beyond the master bedroom in the development. This storage space may be shared and/or private space.

If space is shared, it must:
- Be contiguous and enterable from the *lobby*
- Be located on each floor reasonably close to the elevator
- Be contiguous and enterable from *private outdoor space.*

If space is private, it must:
- Be a closet space within an apartment
- Have a minimum dimension of 4'0"
- Have a minimum area of 16 sq. ft.
- Open onto the apartment foyer or entry area.

- All apartments which have qualifying private storage are considered to be in 100% compliance. Required shared space is then based upon a weighted average of the remaining apartments.

COMPLIANCE

(B/A)100 = %

PREFERRED (A)	PROPOSED (B)	SCALE
number of bedrooms	sq. ft. of	0% = .00
times 5 sq. ft. =	storage space	20% = .39
A sq. ft.	qualifying under	40% = .70
	this section =	60% = .92
	B sq. ft.	80% = 1.14
		100% = 1.30

11. WASTE STORAGE FACILITIES

GOAL

To provide adequate and convenient space for garbage disposal.

PROGRAM

There should be one room per floor for garbage disposal. This room should contain the garbage chute. The size of rooms should meet the following schedule except in rooms with an operable window where scheduled size may be reduced by 15%.

No. of apartments on floor	Size of garbage room
1 - 8	10 sq. ft.
9	11 sq. ft.
10	13 sq. ft.
11	14 sq. ft.
12	16 sq. ft.
13	17 sq. ft.
14	19 sq. ft.
15 - above	20 sq. ft.

- Apartments or town houses which exit directly into *open space* are in 100% compliance if built-in facilities for garbage storage are provided which are directly accessible to the tenant and the sanitation department. This applies to program 12, Garbage Pickup Facilities.

COMPLIANCE

(B/A)100 = %

PREFERRED (A)	PROPOSED (B)	SCALE
A = sq. ft. of garbage rooms required under this section	B = sq. ft. of garbage rooms	*50% = .00 60% = .24 70% = .48 80% = .72 90% = .96 100% = 1.20

*Minimum permitted

12. GARBAGE PICKUP FACILITIES

GOAL

To create a healthy and clean environment, trash for pickup should be kept off the street in a weatherproof storage facility.

PROGRAM

An enclosed and weatherproof space of either 1 square foot per 4 apartments or 30 square feet, whichever is more, should be provided adjacent to the sidewalk and on grade. This space shall be freely accessible to sanitation men. It shall not be visible from the *lobby* or from the path leading from the street to the *lobby*.

COMPLIANCE

(B/A)100 = %

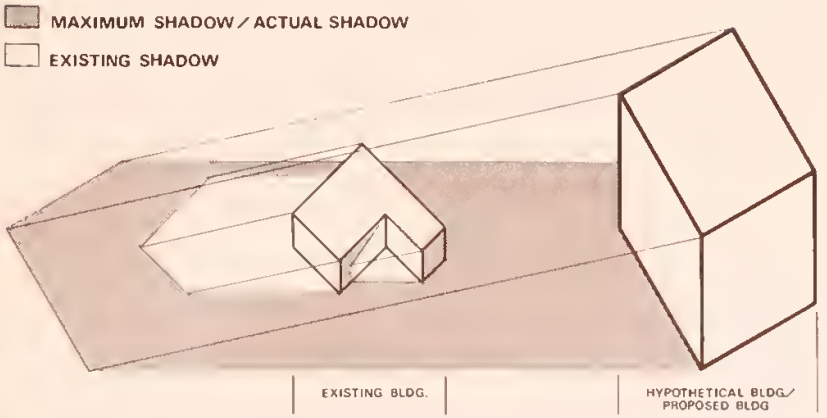
PREFERRED (A)
number of apartments in building divided by 4 = A sq. ft.

PROPOSED (B)
B = area which is in compliance under this section

SCALE
0% = .00
20% = .54
40% = .80
60% = .98
80% = 1.10
100% = 1.20

Definitions and Procedures

Actual Shadow is the volume of shadow projected by the proposed building during the Winter Solstice (December 22) at 9 A.M., 12 Noon and 3 P.M. less the volume of shadow projected by existing buildings. The actual shadow is expressed in square



feet as the average building or ground surface in shadow during these times. When the actual shadow is used to calculate program elements in Program Component A it is calculated separately for each *street district*. When this occurs only that portion of the building within the *street district* being calculated is used to determine actual shadow. The procedures to be followed in calculating the actual shadow are explained in detail under *shadow calculation*.

Adult Use Space is that portion of *recreation space* intended for use by adults. To qualify in terms of the HQP, such space must conform to the specifications in the Recreation Space Standards attached to program element B1. It is the responsibility of the applicant to delineate the limits of this space in accordance with the Recreation Space Standards and those in "Architectural Graphic Standards".

Built Up Street District is a *street district* characterized by an appearance of activity or occupancy. To be so defined, 20% of the *grid squares* within the district, excluding *grid squares* within parks, must contain permanent structures. A grid is considered built-upon when the roof surface of the building within the grid is no less than 312 sq. ft. (1/2 the area of the grid) and it is not within the proposed site, sites zoned M-1, M-2, M-3, C-8 or sites legally designated for clearance and redevelopment by the appropriate municipal, state or federal agency.

Child Use Space is that portion of *recreation space* intended for use by children. To qualify in terms of the HQP, such space must conform to the specifications in the Recreation Space Standards attached to program element B1. It is the responsibility of the applicant to delineate the limits of this space in accordance with the Recreation Space Standards and with those contained in "Architectural Graphic Standards".

Covered Outdoor Space is that portion of open space situated beneath a permanent structure and conforming to dimensional standards specified below. This includes space covered by building overhangs, balconies, porte cocheres, terraces, breezeways, porches or space which is underneath a raised portion of the building. All covered outdoor space must be developed in accordance with the specifications in the Recreation Space Standards attached to program element B1. Covered open space must be open to the air on at least one side. The height of the space must be at least 1/2 of the depth but may be no less than 10'. When covered space is open on two parallel or nearly parallel sides, the depth is measured from open side to open side. When covered space is open on 3 or more sides, the depth is perpendicular to the longer side.

Existing Street Wall Setback The setback of buildings nearest to the proposed property on either side. To determine this setback see *street wall setbacks* (No. 1).

Grading Developments in More than one Street District--The Neighborhood Impact program requires that a separate score be computed for each *street district* a building falls within. When scoring the Neighborhood Impact program for a given *street district* only that portion of the building within the *street district* is considered. The steps listed below are followed:

1. Compute each street district separately. Total scores for each street district separately.
2. Establish a 'weighting factor' for each street district. The weighting factor is the sum of:
   a. The square feet of the site within the street district divided by the square feet of all land--on and off site--within the street district.

b. The square feet of the site within the street district divided by the square feet of the entire site.

c. A zoning factor based on theoretical density. This factor is taken from the following chart.

R-3 = .07 R-5 = .17 R-7 = .41 R-9 = .77
R-4 = .09 R-6 = .31 R-8 = .68 R-10 = 1.00

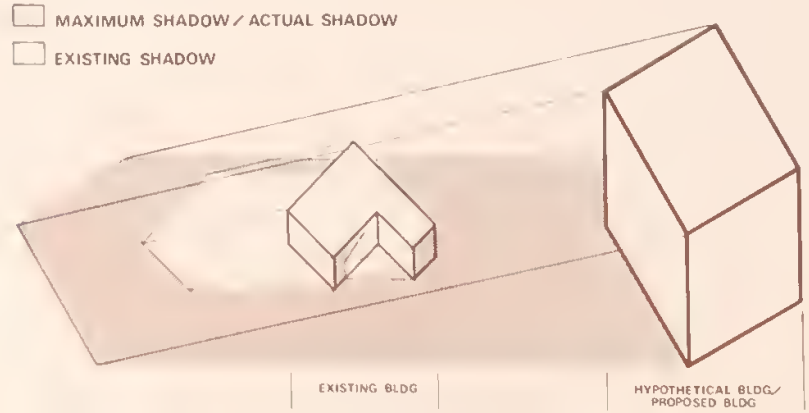
3. Multiply the total score for each street district by the 'weighting factor' for the street district and add all the scores.
4. Divide by the total of all the weighting factors to find the weighted average.

Grid Square--see *neighborhood grid.*

Intermediate Street Wall Setback--The setback from the street of the proposed building between its end points. To determine the area within which this setback must lie see *street wall setbacks* (No. 3).

Lobby is an interior circulation space which provides access to apartments and interior facilities and is accessible from public, semi-private or private outdoor space through a locked door. The lobby must have elevators and/or general circulation stairs in or immediately contiguous to it.

Lobby Vestibule is an interior circulation space which allows movement from *public space, semi-private space* or *private outdoor space* into the lobby itself. The lobby vestibule must 1) have a minimum width of 10 feet, 2) be no more than 1/4 the size of the lobby and 3) have unobstructed visibility from its two ends.



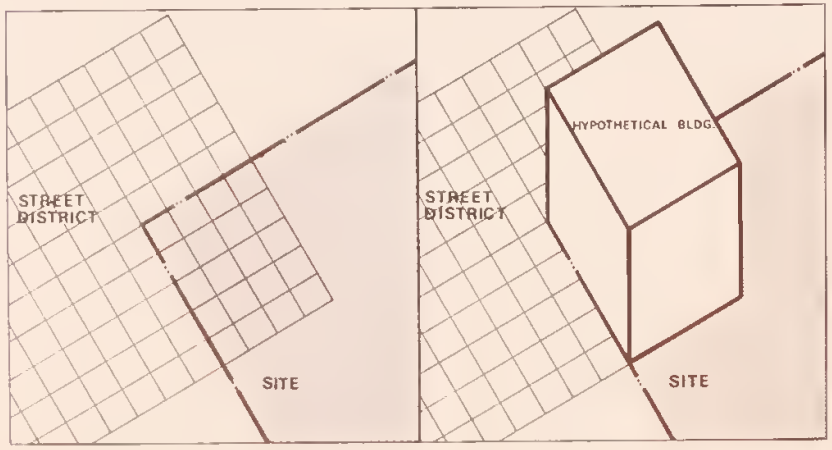
Maximum Shadow is the volume of shadow projected by a hypothetical building during the Winter Solstice (December 22) at 9 A.M., 12 Noon and 3 P.M. less the volume of shadow projected by existing buildings. The floor area of the building shall be equal to the area of the site. The height of the hypothetical building shall be as set forth below:

Height of Hypothetical Building Based on Zoning District

R 10 - 320'	R 6 - 140'
R 9 - 275'	R 5 - 95'
R 8 - 230'	R 4 - 40'
R 7 - 185'	R 3 - 30'

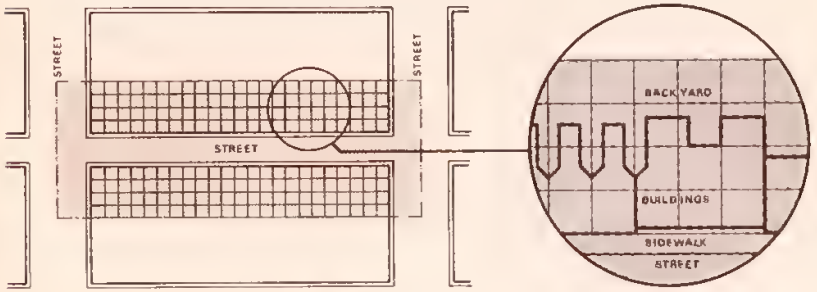
The maximum shadow is expressed in square feet as the average building or ground surface in shadow due to the hypothetical building during these times. The maximum shadow is calculated separately for each street district. When this occurs, only that portion of the hypothetical building within the *street district* being calculated is used to determine the maximum shadow. The procedures for determining the actual shadow are explained in *shadow calculation.*

See diagram lower left hand corner.

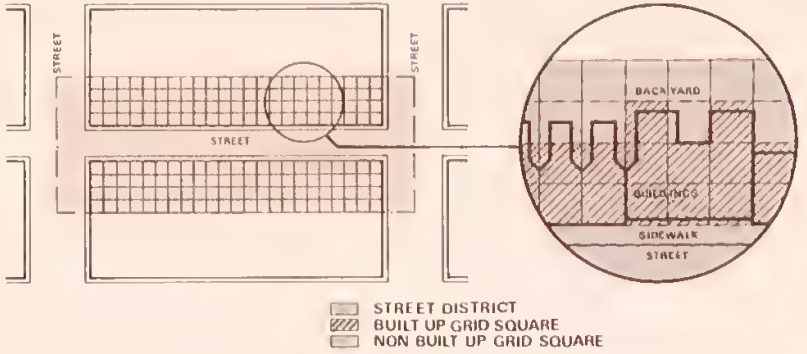


Mixed Use Space is that portion of *recreation space* intended for use by tenants who are over 10 years of age. To qualify in terms of the HQP, such space must conform to the specifications in the Recreation Space Standards attached to program element B1. It is the responsibility of the applicant to delineate the limits of this space in accordance with the Recreation Space Standards and with those contained in "Architectural Graphic Standards".

Neighborhood Grid--An imaginary grid of 25' squares superimposed over all land within a street district excluding public vehicular rights-of-way and their attendant sidewalks. The grid lines shall be parallel and perpendicular to the center line of the street upon which the proposed development has the greatest length of frontage.



Non Built Up Street District is a street district characterized by an appearance of non-activity or vacancy. To be so defined 80% or more of the *grid squares* within the district, excluding grid squares within parks, must be vacant. A *grid square* is considered vacant when it has no buildings within it, when the roof surface of the building within it is less than 312 sq. ft. (1/2 the area of the grid) or when it is within the proposed site, sites zoned M-1, M-2, M-3 or C-8 or sites legally designated for clearance and redevelopment by the appropriate City, State or Federal agency.



Open Space is that portion of *outdoor space* which, when seen from plan view, is open to the sky. Open space must be developed for recreation purposes in accordance with the Recreation Space Standards attached to program element #1 in the Recreation Space Program. Open space may be at any elevation.

Outdoor Space is the sum of all *open space* and *covered space* within the property line of the proposed site. All outdoor space must be developed for recreation purposes in accordance with the Recreation Space Standards attached to program element #1 in the Recreation Space Program.

Pedestrian Parking Garage Exit is the exitway intended for pedestrian use connecting an enclosed garage or lot to semi-private or public space. The latter exit points must be visible from the building *lobby*.

Private Outdoor Space--Space which is accessible only to tenants of the building and their guests. Access to this space must be controlled through the use of interior property lines and buildings on the proposed zoning lot. Walls may be used as part of the enclosure of private open space provided the total length of wall is no more than 5% of the total inside perimeter of the space. Access to such space must be through locked entry points. A single private outdoor space may not be more than 45,000 square feet. Two such spaces may be joined either through the buildings or by an opening in the building provided that opening is no more than 5% of the total inside perimeter of the two adjoining spaces.

Proposed Street Wall Setback--The setback from the street of the proposed building. To determine this setback see *street wall setbacks* (No. 2).

Public Space--Space which is totally available to the public during all times of the day. Off-site public space includes sidewalks, parks and playgrounds. On-site public space requires transfer of ownership or permanent easement.

Public Outdoor Space is *outdoor space* in public ownership permitting free and continuous access. In particular, it may include sidewalks, rights-of-way and parks.

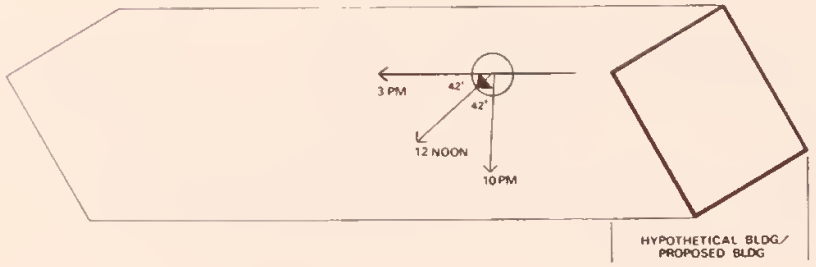
Recreation Space is that area, either indoor or outdoor, which is intended for specified recreation activities. All recreation space must conform to the Recreation Space Standards attached to program element #1 in the Recreation Space Program. It is the responsibility of the applicant to delineate the limit of this space in accordance with the Recreation Space Standards and those in "Architectural Graphic Standards".

Semi Private Outdoor Space is all *outdoor space* which is accessible from the sidewalk but which remains in the ownership of the applicant. In general, this is the space between the building front and the sidewalk. An exception to this is the use of walls to define space reserved for a single ground floor apartment facing the street.

Shadow Calculation is the procedure to be followed in calculating shadow measurements. This procedure must be uniform for all applicants to insure similarity of standards. Fire Insurance Atlases are to be standard reference sources to determine the height and location of existing buildings. Applicants may assume these Atlases as accurate and estimate a 10'-0" floor to ceiling height when the Atlases specify only the number of stories. Applicants may field check conditions to determine greater accuracy.

To calculate the shadow falling on the ground:

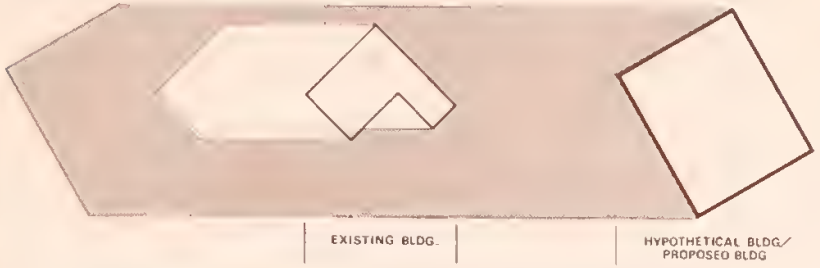
1. The ground surface in shadow shall be measured for 9 A.M., 12 Noon and 3 P.M. at Winter Solstice (December 22). The shadow shall be the average of the areas measured for each time of day.
2. When used for the Neighborhood Impact Program, the *open space* of nearby existing buildings shall be measured. In general this open space shall include all outdoor space less than 23' above the nearest sidewalk elevation unless this space is intended solely for use by automobile or, when originally constructed, was not intended to be space providing light and air or outdoor use for tenants. Space above 23' above the nearest sidewalk elevation shall also be considered when such space conforms to the 'terrace' standards as set forth in the Recreation Space Standards attached to program element #1 in the Recreation Space Program. When used for the Recreation Space and Apartments Programs the shadows cast by nearby existing buildings shall be computed when they reach the proposed building or its *open space*.
3. The angle of the sun in plan is: 9 A.M. = 42° SSE
   12 Noon = South
   3 P.M. = 42° SSW
4. Project lines parallel to the angles, set forth in #3 above, from the corners of the hypothetical building (for *maximum shadow* calculations) or proposed building (for *actual shadow* calculations or for shadow calculations in the Recreation Space and Apartments Programs).
5. Determine the length of the lines projected in #4 above and connect them. The length is determined as follows:
   - at 9 A.M. and 3 P.M. the length of the shadow is equal to 4.7 times the height of the hypothetical or proposed building.
   - at 12 Noon the length of the shadow is equal to 2 times the height of the hypothetical or proposed building.



6. The area enclosed is the ground shadow attributable to the hypothetical or proposed building. If this area contains within it any off-site existing building or buildings, the roof area of these buildings plus the shadow they cast (as calculated by repeating steps 3 - 5) are subtracted from the larger area.

MAXIMUM SHADOW / ACTUAL SHADOW

EXISTING SHADOW

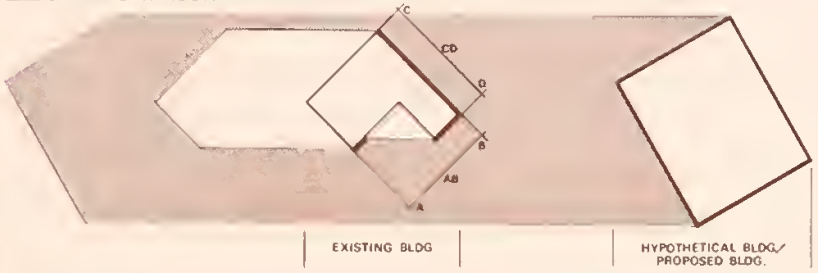


To calculate the shadow falling on building surfaces:

1. The surface of existing buildings having legal windows in shadow shall be measured for 9 A.M., 12 Noon and 3 P.M. at Winter Solstice (December 22). The shadow shall be expressed as the average of the areas measured for each time of day.
2. After the *maximum shadow* or *actual shadow* has been calculated from above, determine the surfaces of existing buildings which are in shadow attributable to the hypothetical building (for *maximum shadow* calculations) or the proposed building (for *actual shadow* calculations) (walls AB and CD). From points

MAXIMUM SHAOOW / ACTUAL SHAOOW

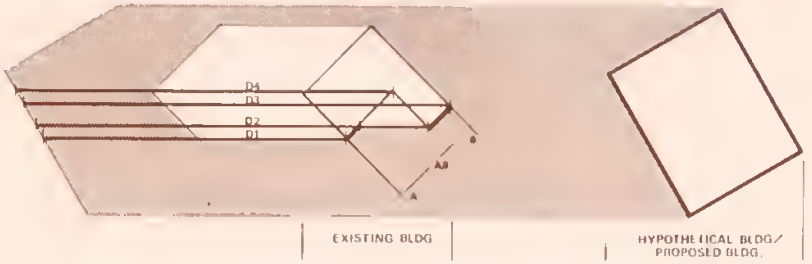
EXISTING SHAOOW



where the ground shadow intersects the base of the existing building measure, in plan, the distances (D_1, D_2, O_3 and D_4) to the end of the shadow as if there had been no existing buildings.

MAXIMUM SHAOOW / ACTUAL SHAOOW

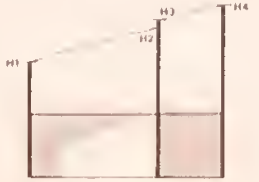
EXISTING SHADOW



3. Find the height that the shadow extends up the building surface:
   - The height at 9 A.M. and 3 P.M. equals one-fifth (1/5) the distance in #2.
   - The height at 12 Noon equals one-half (1/2) the distance in #2.
4. Draw the elevation of the building surface. Project the height (H_1, H_2, H_3 and H_4) of the shadow from the points where the ground shadow intersects with the base of the existing building up to determine the area of the surface in shadow.
5. The area enclosed in elevation is the existing building surface in shadow attributable to the hypothetical building (for *maximum shadow* calculations) or the proposed building (for *actual shadow* building calculations). If this area contains within it a shadow cast by another existing off-site building (as calculated by repeating steps 2 - 4) this surface area is subtracted from the larger surface area.

MAXIMUM SHADOW / ACTUAL SHAOOW

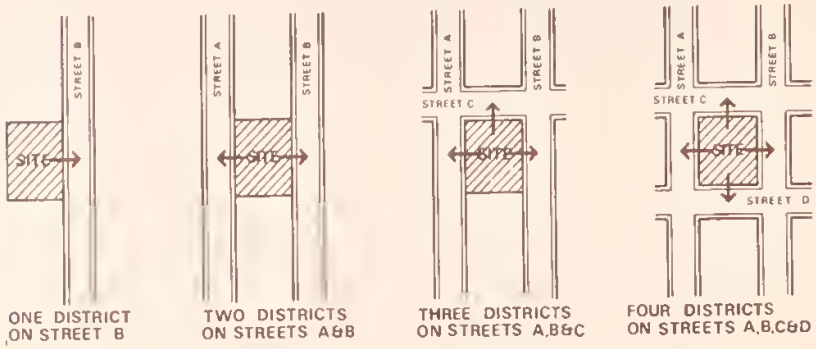
EXISTING SHAOOW



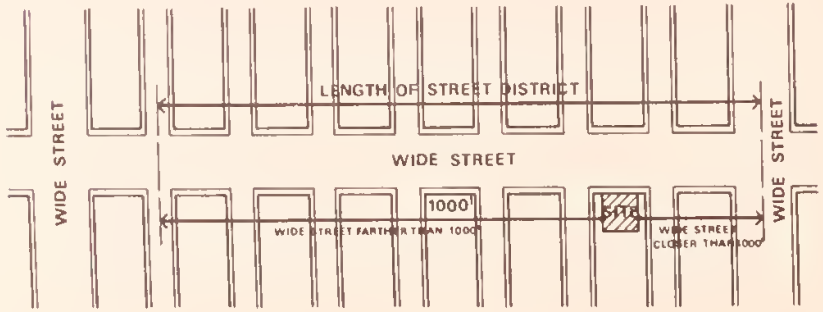
ELEVATION OF FACE AB

Street District is that portion of the surrounding area which visually effects and is effected by the proposed development. When a building falls within more than one street district, separate computations must be done for each street for the Neighborhood Impact program. These computations relate only to that section of the proposed building within a given street district. (See *Grading Developments in More than one Street District.*) It is defined by boundary lines, drawn as follows:

1. Each site which is contiguous to or intersects the street shall have a 'street district'. There shall be as many street districts as there are different streets intersecting or contiguous to the proposed site.

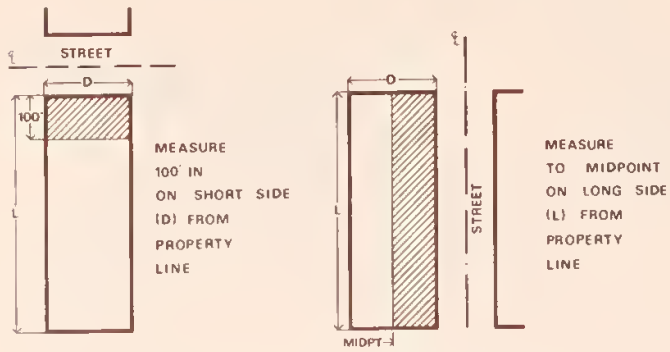


2. The length of a street district is determined by the width of the intersecting streets and their distance from the side property lines of the site. The street district terminates at the point it intersects another street of equal or greater width except that no street district may extend more than 1,000 feet from a side property line.

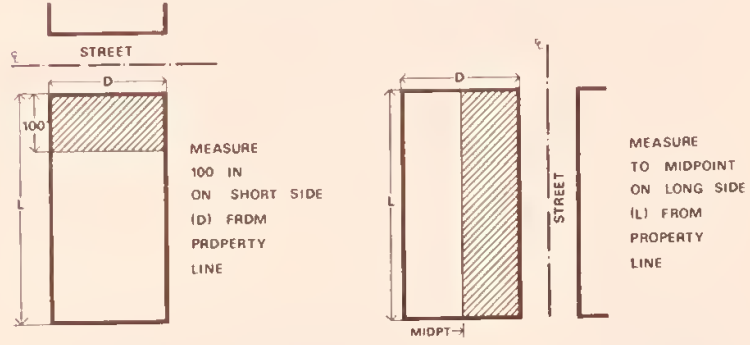


3. The depth of the street district is determined by drawing a boundary line parallel to and on either side of the center line of the street. The distance between the street property line and this line is determined in the following manner:

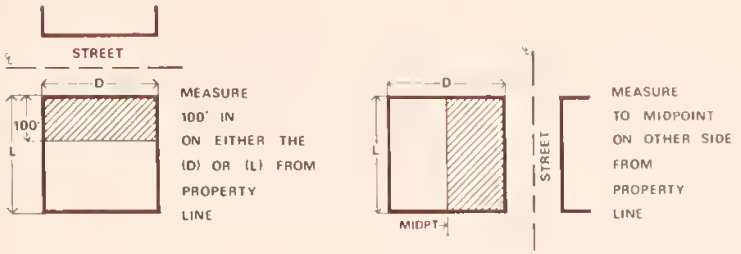
   a. For blocks where the length (L) is greater than the depth (D), and the depth is 200' or less.



   b. For blocks where the length (L) is greater than the depth (D) and the depth greater than 200'.



c. For blocks where the length (L) is equal to the depth (D) and the depth and length are greater than 200'.



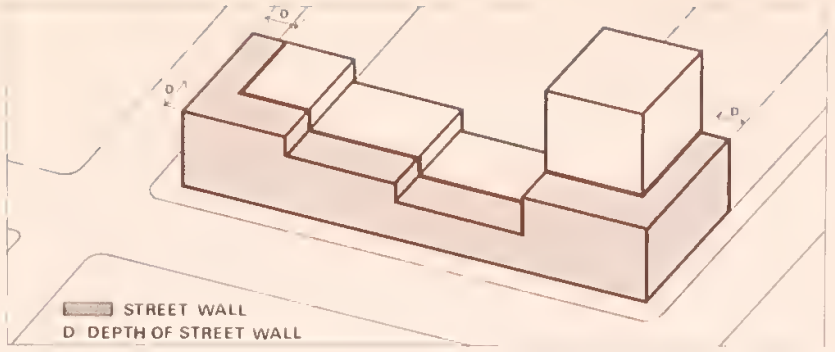
d. Blocks bordering on waterways are considered to have a depth equal to the distance between the street property line and the mean high water line.

4. Street districts may have combinations of the above conditions.

Street Wall is that part of a building which fronts on the public or semi-private space. Its depth is established by the following chart.

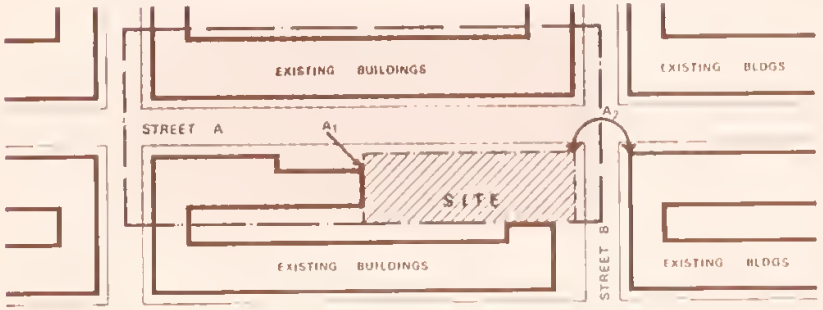
Depth of Site	Min. Depth of Street Wall
100' - 119'	12'-0"
120' - 139'	14'-6"
140' - 159'	17'-0"
160' - 179'	19'-6"
180' - 199'	22'-0"
200' & greater	25'-0"

Considered vertically, it includes all wall surfaces which are perpendicular and parallel or nearly parallel (up to 45°) with the center line of the street.

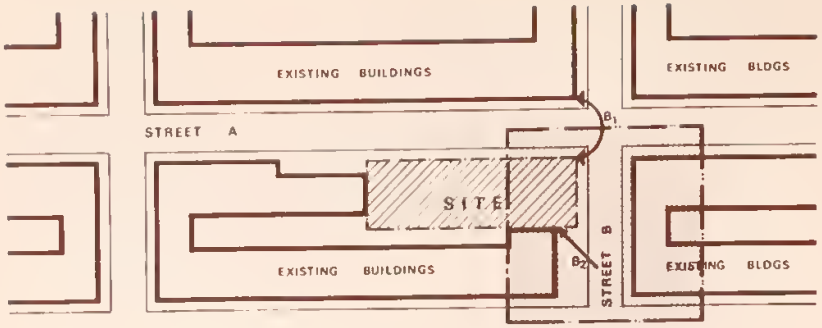


Street Wall Setbacks

1. To determine the setbacks at either end of the proposed building's facade first measure the *existing street wall setback*.
   a. There will be an existing setback for each sideyard property line or corner property line which interseets the street property line of the street district being measured. These are the preferred setbacks.
   b. The preferred setbacks are measured from the existing building edge nearest the sideyard property or corner lot line of the proposed site. The existing building must be on the same side of the street as the proposed building (setbacks A_1 & A_2 and B_1 & B_2).



STREET DISTRICT A
PREFERRED SETBACKS A_1 & A_2



STREET DISTRICT B ▨
PREFERRED SETBACKS B_1 & B_2

c. If there is no building within 300 feet of the sideyard or corner lot property line, the preferred setback shall be determined by the applicant.

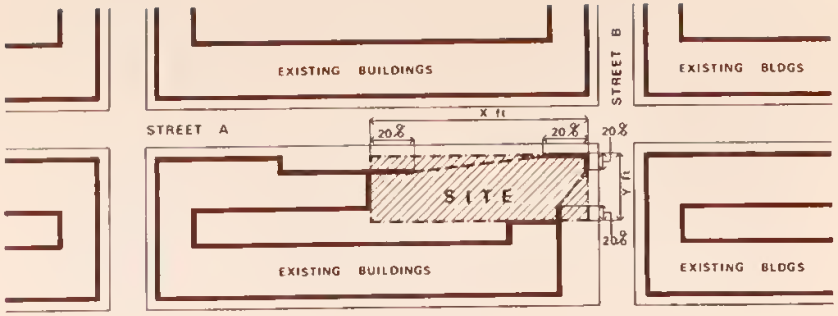
d. If the existing street wall setback measures between 0'-0" and 9'-11" it may be computed as 10'-0", permitting full compliance for a building which is set back 10'-0" but is contiguous to an existing building which is built up to the property line.

e. If the existing street wall setback measures over 50'-0" it may be computed as 50'-0", permitting full compliance for a building which is set back 50'-0" and is adjacent to an existing building set back over 50'-0".

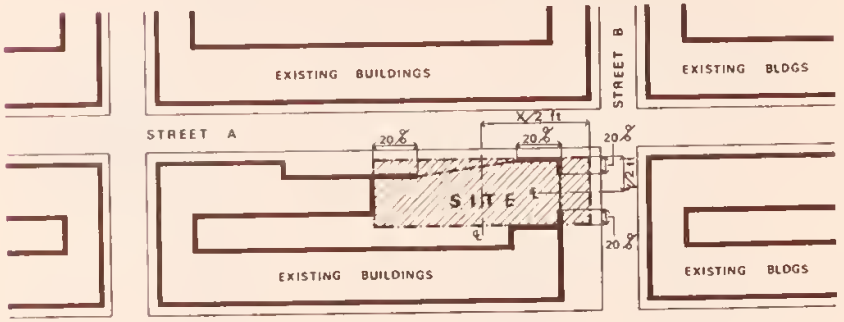
2. Once the *existing street wall setbacks* have been determined, the measurement of the *proposed street wall setback* shall be determined as follows:

a. The shortest distance between the edge of the facade of the *street wall* nearest a sideyard or corner property line and the street property line parallel to the center line of the street district being measured.

b. The section of the facade of the *street wall* from which the proposed setback is being measured must be equal to 20% of the frontage of the property.



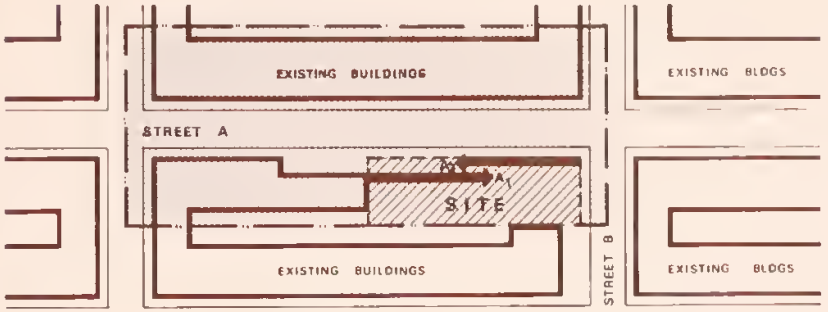
c. When the property is a corner lot, the proposed setback may be measured from any section of the *street wall* provided that section is equal to 20% of the total property frontage and located on that half of the building elevation nearest the corner.



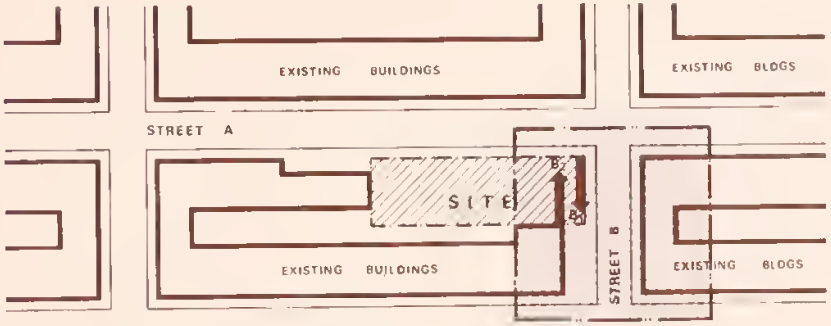
d. The setback of the proposed building shall be measured from the front of the enclosed floor area nearest grade. Successive higher floors may not be closer to the *street wall* property line in plan view. The frontal plane of floors above this point are included in the *street wall* if their setback is no more than 3' more than the smallest setback. A larger setback must conform to the minimum depths set forth under *street wall*.

The lowest floor set back in conformance with the depths set forth in *street wall* determines the height of the *street wall*. Successive higher floors may not be closer to the street in plan view.

3. To determine the *intermediate street wall setbacks* it is necessary to find the area within which they may fall. The applicant may choose any desired intermediate setback which is within this area. To determine the area:
   a. The proposed setbacks are projected to the nearest corner or sideyard property line.

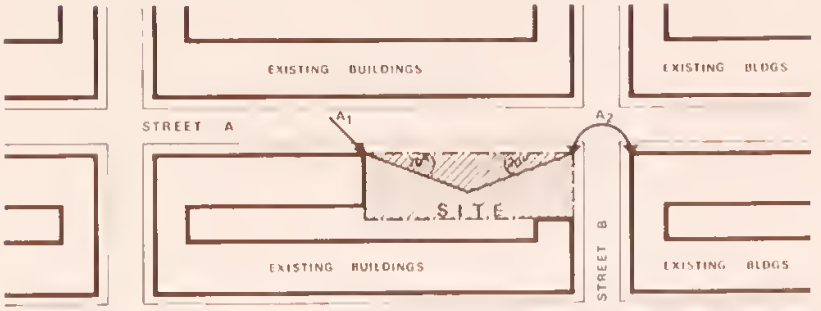


STREET DISTRICT A ▨
PREFERRED SETBACKS A_1 & A_2 PROJECTED



STREET DISTRICT B ▨
PREFERRED SETBACKS B_1 & B_2 PROJECTED

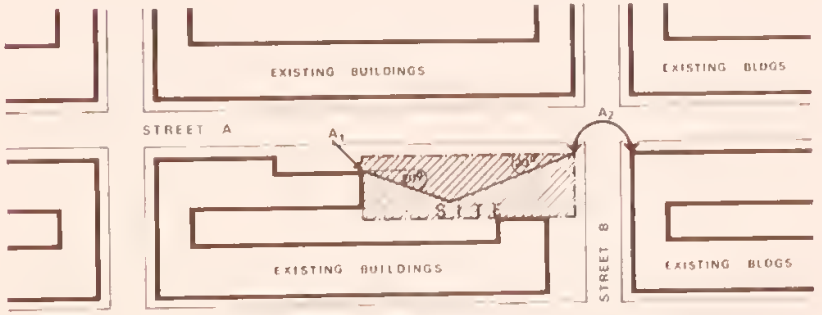
   b. From the point obtained above (A_1 & A_2 and B_1 & B_2), describe an angle of 20° measured with one side parallel to the street property line and the other towards the interior of the side. From each point continue the lines formed by these angles until they intersect.



AREA IN WHICH STREET WALL IS LOCATED ▨
PREFERRED SETBACK A_1 & A_2

   c. The triangle formed is the area within which the frontal plane of the *street wall* must lie.

   d. When the proposed setbacks are unequal, two lines parallel to the street property line will result. The line with the larger setback shall be considered within the area described and the area shall be completed with a portion of the property line on the side with the greater setback.



AREA IN WHICH STREET WALL IS LOCATED ▨
PREFERRED SETBACK A_1 & A_2

e. When the differences between the proposed setbacks are so great as to prevent the lines projected towards the interior of the site from intersecting, the area shall be a rectangle. The sides of this rectangle shall be:
   - A line parallel to the street property line and set back a distance equal to one setback.
   - A line parallel to the street property line and set back a distance equal to the other setback.
   - The sections of the sideyard property lines between the lines formed above.

Threshold Point is the point of transition from one type of space to another. In particular this refers to the point from:

1. lobby vestibule to outdoor space
2. elevator door or general circulation stair to apartment door
3. sidewalk to semi-private outdoor space
4. entry to elevator lobby or general circulation stair to parking area.

For calculation purposes, the actual threshold point may be located anywhere along the line of transition and up to 3'-0" in front or behind it.

IV Appendix

SUPPLEMENTARY RECOMMENDATION: PARKING

The 1961 Zoning Resolution drastically revised upward the amount of required off-street parking facilities for residential construction. The decision was intended to reduce street congestion by minimizing curbside parking. To accommodate this new demand for available on-site land, provision was made to permit up to 50% of the residential open space to be used for surface parking.

There were two immediate consequences to this policy: first, building heights went higher to provide less coverage and more space on the ground; second, half the ground was covered with a parking lot. Typically the automobiles have been located near the buildings for security and safety reasons while children are left to play in remote, unprotected "open space". Unhappily the tenant has been forced to sacrifice potential recreation benefits to the convenience of the automobile, typically not his own.

The parking policy, as embodied in the present Zoning Resolution, contains further inconsistencies and unforseen resultants. Beyond the trade-off of open space for parking, it was determined that parking requirements be lower for subsidized than for conventional housing. The underlying economic assumption, that poorer people own fewer cars, is too simplistic to be generalized. There are many more compelling factors which determine the choice of automobile ownership: availability to mass transit and employment opportunities, to name just two. It often happens, therefore, that the substantially lower parking requirements for publicly-assisted housing cause more street congestion in the poorer neighborhoods than in others.

Further, the Zoning Resolution is ambivalent regarding reservation of parking space for tenants. It is commonplace in many of the more dense areas of the City that once parking spaces are built, they are not occupied by tenants of the building, because either the rentals are too high or there is insufficient automobile ownership within the building. This reservoir of unused spaces is converted then to a short-term commuter parking facility, attracting much unwanted traffic to the area. The combination then, of mandated minimum requirements with no maximum limits, coupled with the absence of exclusive reservation for the tenants, has tended to proliferate unwanted and unnecessary parking accommodations. At best this situation is a nuisance with regard to housing quality and at worst, an outright preemption of more demanding quality concerns.

The automobile therefore must be placed in perspective with relation to other elements of housing quality. Assuming that cars are a reasonable economic necessity, it is proper that access to them be easy and convenient. Two acceptable alternatives are possible without compromising other housing objectives: on-street curb parking or on-site covered parking. Free parking in the street, consistent with traffic objectives, will always be competitive and desirable. On-site covered parking is no less desirable but more difficult to achieve.

Predictably, cost is the problem. Current estimates for the cost of parking spaces vary greatly: surface, $900; surface with a recreation deck over, $2400; separate parking structure, $2600; and underground garage, $4200. In coventionally-financed housing, the higher capital costs associated with out-of-sight parking are often justified either as an inducement to prospective tenants or as an opportunity for additional project income. In subsidized housing however, with severe mortgage and construction dollar limits, the higher priced parking spaces can be obtained only at the unacceptable expense of other project necessities.

Clearly a rationalization of the residential parking policy as embodied in the existing Resolution must be accomplished. To this end it is recommended that:

- the minimum percentage of required parking be generally reduced city-wide, and maximum percentage be established, beyond which a Special Permit would be required from the City Planning Commission, as follows:

	Minimum %	Maximum As-of-Right
R1, R2, R3, R4	40	80
R5, R6, R7	20	50
R8, R9, R10	0	25

- the above figures remain constant for conventionally financed, publicly-assisted and public housing.

- all parking spaces constructed in conjunction with a housing development be reserved for the exclusive use of the tenants.

HOUSING QUALITY PROGRAM: PARKING COSTS
EXAMPLE: LOW-BULK R4
200 APARTMENTS

	Required	Required Spaces	Project Cost: Surface (900)	Decked (2400)	Structured (2600)	Underground (4200)	Cost/Apartment
A. Existing	100	200	180,000				900
B. New Minimum	40	80	72,000				360
				192,000			960
					208,000		1040
						336,000	1680
C. New Maximum	80	160	144,000				720
				384,000			1920
					416,000		2080
						672,000	3360

HOUSING QUALITY PROGRAM: PARKING COSTS
EXAMPLE: MID-BULK R6
200 APARTMENTS

	Required	Required Spaces	Project Cost: Surface (900)	Decked (2400)	Structured (2600)	Underground (4200)	Cost/Apartment
A. Existing	70%	140	126,000				630
B. New Minimum	20%	40	36,000				180
				96,000			480
					104,000		520
						168,000	840
C. New Maximum	50%	100	90,000				450
				240,000			1200
					260,000		1300
						420,000	2100

HOUSING QUALITY PROGRAM: PARKING COSTS
EXAMPLE: HIGH-BULK R8
200 APARTMENTS

	Required	Required Spaces	Project Cost: Surface (900)	Decked (2400)	Structured (2600)	Underground (4200)	Cost/Apartment
A. Existing	40%	80	72,000				360
B. New Minimum	0	0	-				-
				-			-
					-		-
						-	-
C. New Maximum	25%	50	45,000				225
				120,000			600
					130,000		650
						210,000	1050

TABLE I - QUALITY RATING

PROGRAM	A NEIGHBORHOOD IMPACT	B RECREATION SPACE	C SECURITY & SAFETY	D APARTMENTS
PROGRAM POINTS				
0 - 10	0	0	0	0
10 - 13	1	1	1	1
13 - 16	2	2	2	2
16 - 19	3	3	3	3
19 - 22	4	4	4	4
22 - 25	5	5	5	5

TABLE II - MAXIMUM FLOOR AREA RATIO

ZONE	R3	R4		R5		R6	R7	R8	R9	R10
FLOOR AREA/ROOM (sq. ft.)	190	205		215		230	245	264	292	308
QUALITY POINTS	(1)	(1)	(2)	(1)	(2)	(1)	(1)	(1)	(1)	(1)
0	0.25	0.37	0.37	0.62	0.62	1.20	1.70	3.00	3.75	8.00
1	0.26	0.39	0.41	0.65	0.66	1.26	1.78	3.15	3.93	8.20
2	0.27	0.41	0.44	0.67	0.71	1.32	1.87	3.30	4.12	0.40
3	0.28	0.42	0.48	0.71	0.75	1.38	1.95	3.45	4.31	8.60
4	0.29	0.44	0.52	0.74	0.79	1.44	2.04	3.60	4.50	0.80
5	0.31	0.46	0.55	0.77	0.03	1.50	2.12	3.75	4.68	9.00
6	0.32	0.48	0.59	0.81	0.87	1.56	2.21	3.90	4.87	9.20
7	0.33	0.50	0.62	0.83	0.92	1.62	2.29	4.05	5.06	9.40
0	0.34	0.52	0.66	0.86	0.97	1.68	2.38	4.20	5.25	9.60
9	0.35	0.53	0.70	0.89	1.02	1.74	2.46	4.35	5.43	9.80
10	0.37	0.55	0.73	0.92	1.05	1.80	2.55	4.50	5.62	10.00
11	0.40	0.61	0.80	0.98	1.12	1.86	2.63	4.65	5.01	10.20
12	0.42	0.67	0.87	1.05	1.18	1.92	2.72	4.80	6.00	10.40
13	0.45	0.73	0.95	1.11	1.25	1.98	2.80	4.95	6.18	10.60
14	0.48	0.79	1.02	1.17	1.31	2.04	2.89	5.10	6.37	10.80
15	0.51	0.84	1.09	1.23	1.38	2.10	2.97	5.25	6.56	11.00
16	0.57	0.99	1.16	1.37	1.43	2.16	3.06	5.40	6.75	11.20
17	0.62	1.14	1.23	1.50	1.50	2.22	3.14	5.55	6.93	11.40
18	0.68	1.30	1.30	1.62	1.62	2.28	3.23	5.70	7.12	11.60
19	0.74	1.45	1.45	1.75	1.75	2.39	3.31	5.85	7.31	11.00
20	0.80	1.60	1.60	1.90	1.90	2.40	3.40	6.00	7.50	12.00

(1) Maximum FAR, standard sites
(2) Maximum FAR, infill sites

ANDREW ALPERN

13 August 1978

Dear Mr Durst →

In going through my shelves to make room for the lavish book on Brooklyn you gave me I came across this brochure on housing zoning reform. Since you are concerned with that subject it would be more appropriate for you to have it in your collection than for me.

Cordially,

Andrew

Mr Seymour B Durst
1133 Sixth Avenue
New York NY 10036

I. BUILDINGS SURVEYED

In preparation for this report the following Multi-Story developments were surveyed. The survey consisted of room and closet measurements, window measurements, balcony measurements and net to gross ratios. Other factors measured were hallway area, number of apartments on a floor, linear feet of corridor, number of floors and circulation systems.

Algonquin Apartments; Chicago, Illinois; Mies Van Der Rohe
Apartments Roubaix; Roubaix, France; G. Gillet
Bellahøj; Copenhagen, Denmark; Irming
Charlesbank Apartments; Boston, Massachusetts; Hugh Stubbins
Chatham Towers; New York, New York; Kelly & Gruzen
Columbia & Pratt Apartments; Chicago, Illinois; Hausner & Macsai
Dearborn Towers; Dearborn, Michigan; King & Lewis, Inc.
Eastgate; Cambridge, Massachusetts; Brown, Koch, Kennedy, De Mars, Rapson
Flamingo Apartments; Philadelphia, Pennsylvania; John H. Graham
Frawley Plaza; New York, New York; Gruzen & Partners
Gratiot Development; Detroit, Michigan; Yamasaki
Gropiusstadt; Berlin, Germany; Walter Gropius & The Architects Collaborative
Guldheden Apartments; Gothenburg, Sweden; Ostnas, Brolid, Wallender
Haarlem Apartments; Haarlem, The Netherlands; Haak
Hansaviertel; Berlin, Germany; H. Schwippert
Hansaviertel; Berlin, Germany; P. Vago
Hansaviertel; Berlin, Germany; Alvar Aalto
Helical Tower Apartments; New York, New York; I.M. Pei
High Paddington; London, England; Sergei Kadleigh
John Hancock Towers; Chicago, Illinois; Skidmore, Owings & Merrill
Lafayette Park; Detroit, Michigan; Mies Van Der Rohe
Laguna/Eichler Apartments; San Francisco, California; A. Quincy Jones & Fred Emmons
Lake Point Towers; Chicago, Illinois; Schipporeit-Heinrich, Inc.
Letzigraben Apartments; Zurich, Switzerland; Steiner
New York Avenue, between 89 & 90 Streets; New York, New York; Horace Ginsbern & Associates
900 Esplanade Drive; Chicago, Illinois; Mies Van Der Rohe
Pomeroy Green; Santa Clara, California; Sasalci Walker
Sampson Plaza Apartments; Madison, Wisconsin; Harry Weese
Shorecliff Tower; Santa Monica, California; A. Quincy Jones & Emmons
Spring Pond Apartments; Corning, New York; Saur & Devito
The Terrace at Peacock Gap; San Rafael, California; Sherril Broady Associates
Tower Apartments; Vallingby, Sweden; Klemming, Ancker & Gate
Unite D'Habitation; Berlin, Germany; Le Corbusier
Unite D'Habitation; Marseilles, France; Le Corbusier
Woodlawn Gardens; Chicago, Illinois; Stanley Tigerman

II. BUILDINGS TESTED (12)

In preparation for this report the following buildings were tested under the procedures established in the Housing Quality Program.

The Caldwell; 1514-26 York Avenue, Manhattan; Philip Birnbaum
The Camelot; 185-01 Hillside Avenue, Queens; A. H. Salkowitz
East Midtown Plaza; 301-351 East 23 Street, Manhattan; Davis, Brody & Associates
Essex Terrace; 900-922 Hegeman Avenue, Brooklyn; Norval White
Gates Avenue, Model Cities Sites 42, 47, 47A & 48; 714-835 Gates Avenue, Brooklyn; E. N. Turano
Johnson Avenue; 2400 Johnson Avenue, Bronx; Leo Stillman
Lafayette-Boynton Houses; 801-875 Boynton Avenue, Bronx; Hausman and Rosenberg
Lambert Houses; Boston Road, Bronx; Davis, Brody & Associates
Madison Avenue; 1239 Madison Avenue, Manhattan; Philip Birnbaum
The Phoenix; 160 East 65 Street, Manhattan; Emery Roth & Sons
Rafael Hernandez; 189 Allen Street, Manhattan; Morris Ketchum & Associates
Teller Avenue; 166 Street & Teller Avenue, Bronx; Lilien & Associates

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Outside New York State

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